BUILD
YOUR OWN
SUMMER CAMP
OR CABIN

by Jeffrey Livingstone

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BUILD YOUR OWN SUMMER CAMP OR CABIN

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ABOUT THE AUTHOR

Jeffrey Livingstone was born in Hillsdale, Michigan, attended a prep school in Massachusetts, and then returned to Hillsdale College. At the end of his junior year he decided he wanted to become an architect and entered the School of Architecture at Columbia University. He has been associated with several architectural firms and has been technical editor of an architectural magazine and editor of books in this field. At the present time Mr. Livingstone is free-lancing as a writer and architectural advisor. Married and the father of three children, he lives in Yorktown Heights, New York, in a house which he designed himself.

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PREFACE

Why are you interested in building a camp, cottage, or cabin? Probably it started with some memorable summers in your own childhood. I can remember a summer at Ontario Bay—or was it that vacation on Tallon Lake in Canada that made such a big impression? Perhaps my own interest was heightened when our children experienced pleasant summers at Lake George and on the St. Lawrence River. It isn't important how it started. But the fact that you and I have experienced a valuable contribution to our lives, made possible by camp life, is one reason why you want to build your own retreat.

In this book I have tried to make it possible for you to build a camp that is inexpensive and will meet the requirements of summer living. The book has been arranged so that you can select the cottage that appeals to you and then, by studying the more technical sections, be able to construct the shelter.

Another section of this book is devoted to cottages that are already built. Designs by some of this country's and Canada's best-known architects are included. You will find ideas in these designs that you may want to incorporate in your own cottage. Nearly every locality is represented. You'll find camps near the ocean, lakes, and rivers. Some aren't near any body of water.

In the more technical sections on general construction, lighting, and plumbing, I have tried to select one easy way of doing the work. It is never the only way that it can be done. Custom and your own experience will help you to decide how you will want to do the job.

The special detail section of this book will be helpful to you whether you already own a cottage or not.

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ACKNOWLEDGMENTS

One person never writes a book. Every author draws upon his experiences and relationships with others. Many pieces of information are gathered together by him to be formed into an understandable mosaic that can be helpful to you.

Among those who have contributed directly to the fun of doing this book are: all the people at McGraw-Hill Book Company who had a hand in its editing and production; Mr. Torquato de Felice, who checked the drawings; Mr. Tom Maley, who photographed the models; Mr. and Mrs. Don Graf; Mr. and Mrs. George Barford; Dr. and Mrs. Jeffrey D. Livingstone, my parents. As is inevitable, the most important assistance was given by my wife, Mary, who not only criticized the drawings and manuscript, but very ably helped to make the architectural models shown in this book.

Certain written materials have been helpful, including: National Bureau of Standards bulletins; Federal Housing Agency booklets; articles in *House Beautiful* and *Canadian Homes and Gardens;* Montgomery Ward pamphlets.

To quote from Messrs. Gilbert and Sullivan, "To all of these we give our thanks."

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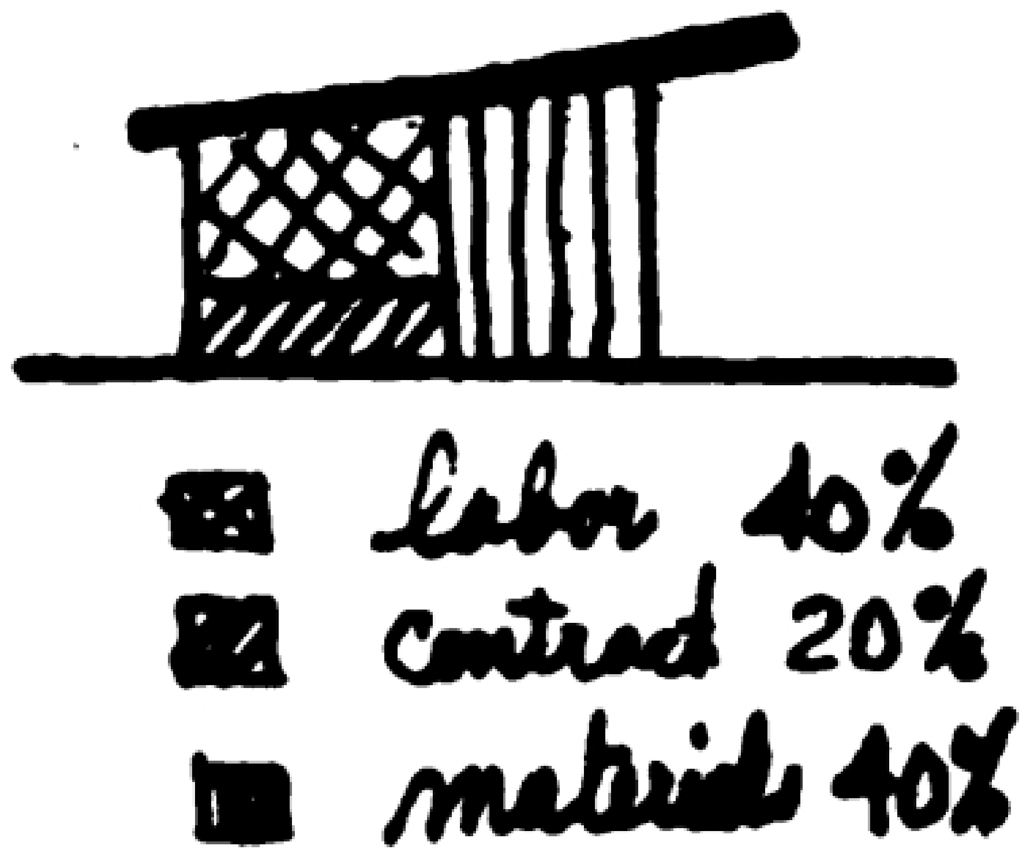
WHY BUILD YOUR OWN CABIN?



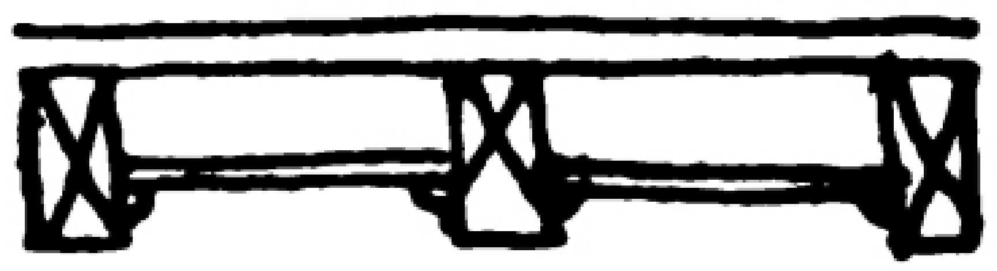
here's how your dollars might be spent

There may be many reasons for wanting to build your own cabin. I'll give you two that I think are fairly universal: You probably feel sure that you can save money by doing the work yourself. And there is a great deal of satisfaction in doing the work.

Saving money is important to all of us. If you plan your work carefully, have a clear conception of what you are doing, and aren't going to give up halfway through, I'm sure that you can save at least a third of the contractor price for any of the cottages shown in this book. It is possible to save much more. Perhaps that's all the incentive you need.

Let's look at the second reason. As with so many other things in life, the real satisfaction is in the doing. If you have never lifted a piece of timber into place or nailed on a stretch of siding, you've missed something. There's real satisfaction in seeing the puzzle go together, in smelling fresh-cut wood, and in feeling the materials that go into your cabin. You'll find yourself inspecting the color and graining of the pieces you are working with. Wood and stone will have new tones and high lights that you never saw before.

As you begin to feel and work with these raw materials, you'll also become more interested in the craftsmanship of putting the materials together. Instead of covering the underside of the roof joists with just any old material to hide them, you'll consider ways of leaving some of the work exposed so that other people will be able to experience some of the enjoyment you have had in working with the various materials.



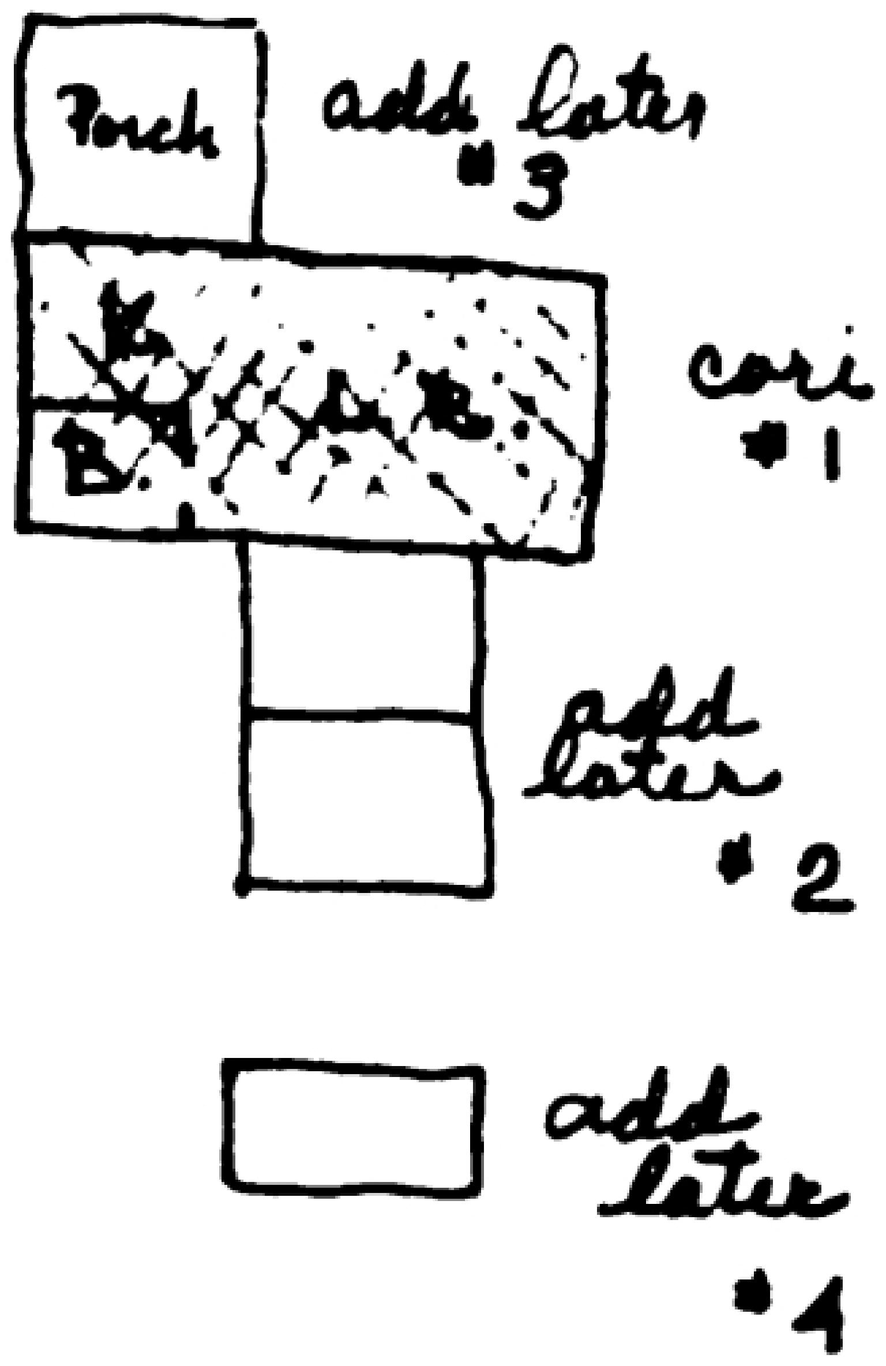
use rigid board between roof members so that framing shows!

Possibly you are thinking about the cottage as a low-cost solution to your permanent housing problem or as a retirement home. All the cottages in this book could be used year-round if properly insulated and heated. But a word of caution: The plans shown are minimal. The kitchens are small, the baths are not large, some plans will require enclosing porches for sleeping areas. Really decide for yourself how you intend to use the various areas. Summer living is different from winter.

Of course, when the job is all done, you'll find much hidden and real enjoyment in telling your friends how you did it. If you earn your living by a sedentary method, you'll probably tell them that you ate like a horse all the time you were doing the work and that you never felt better. The truth is, you will probably have forgotten about the office for the first time in ages and found yourself creating something that you didn't know you could.

Have I persuaded you to do your own cottage? If I haven't, have a local contractor do the job for you—let him be the healthy one. Give him this book, mark the plan you like, and he can do the work. All he needs to know is in this book.

SELECTING THE COTTAGE YOU WANT



I wish I could tell you which cottage you should build, but you're going to have to decide that for yourself. You'll have to select a cottage to fit the piece of property you own or intend to buy. You'll also have to decide how you want to live when you're using the camp.

Several of the camps shown in this book have core or starter units. Perhaps this is what you want—a one-room job that you can add to in other years. It's a good idea. It won't drain your pocketbook completely. But if this is what you want, it is important that you know in advance how you are going to expand the cottage.

Another good thing about these core units—your plans can be flexible. If you have a growing family, you're probably not sure how many bunk rooms you may need in the future. Or maybe you picked a remote spot and aren't sure how many of your friends will be willing to make the trek. My guess is that more people than you think will seek you out.

Other cottages in this book should have the shell built at one time. You can leave the finishing for some future date. Remember that outside plumbing is still permissible in many areas and you can take your bath in the lake or in the old wash boiler. The section of this book on site selection and orientation will also help you decide whether a certain cottage is suitable to your property. Don't fail to read it. Another reminder: Any cottage in this book can be reversed. If the sleeping area is on the right of the living area, the plan can be flipped so that it is on the left.

Each set of cottage plans has a short description at the beginning. The salient features of the camp are explained. These paragraphs will also help you to decide whether this is the cabin you want to build.

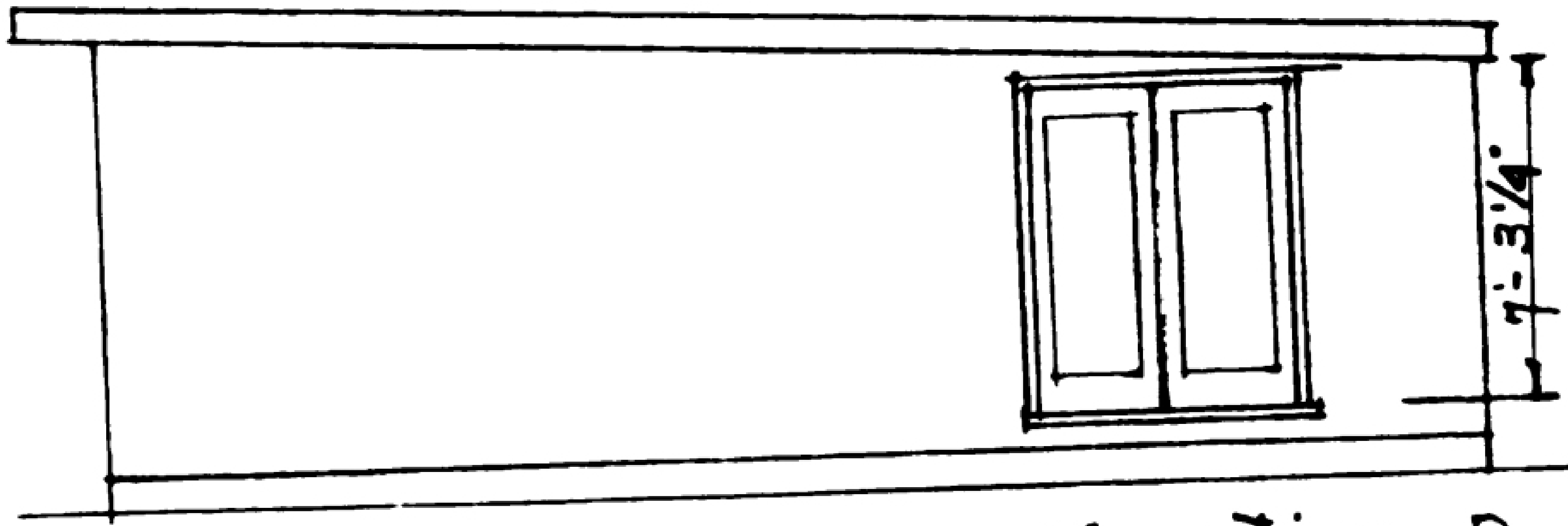
Now let's take a look at these cabins and cottages.

PLAN 1

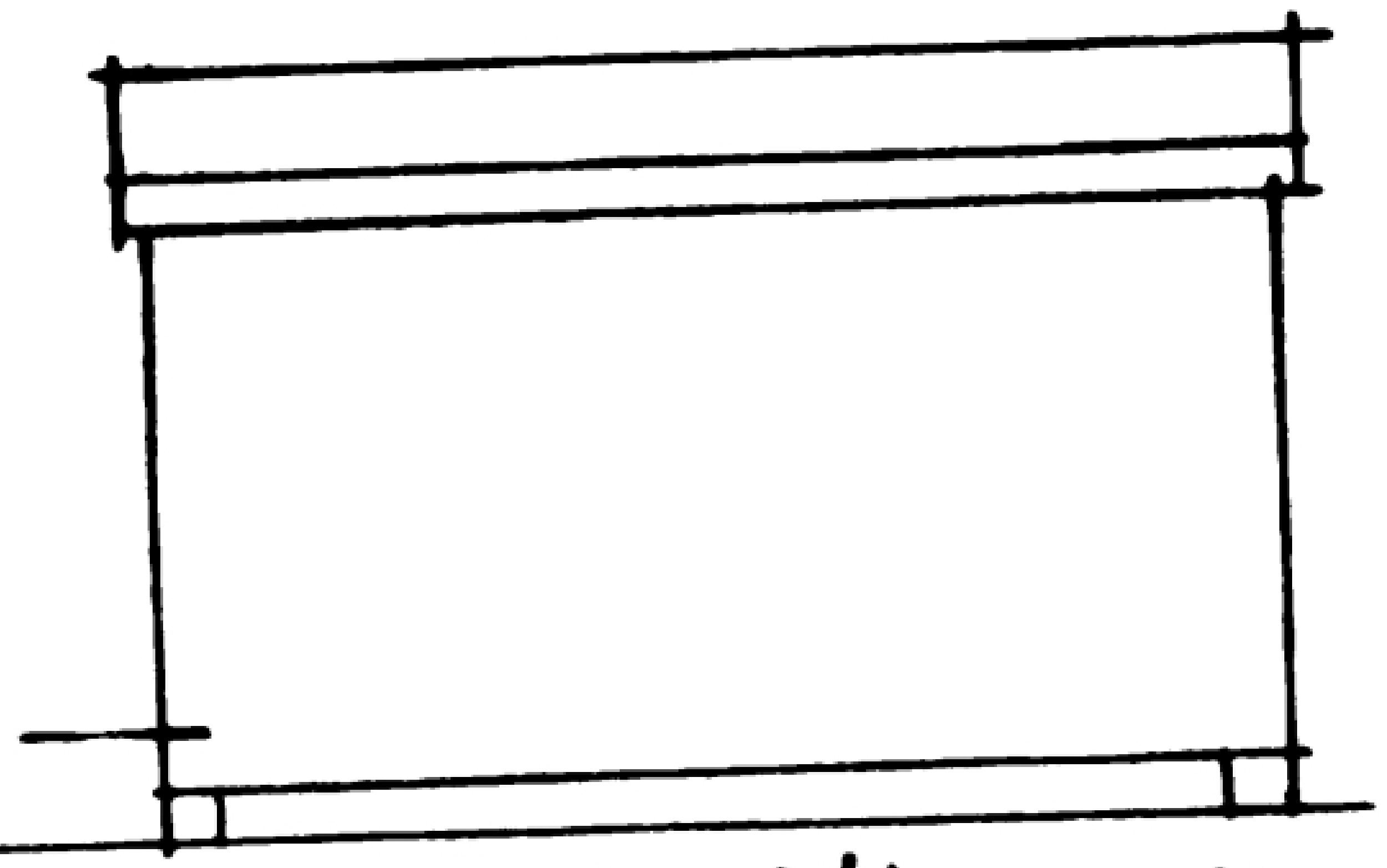
Here's a core type of cottage that is simple to build. Why not build the basic section of this cottage now? You can add to it later. With studio couches it will sleep four comfortably. Later you can add the bunk rooms—as many as you need. The last bunk room beyond the car port is a luxury, but if you have someone in the family who snores, it's worth having. You can also use that annex for your more formal guests. The porch off the kitchen area is a desirable addition that you can make at any time.

The fireplace can be made of stone around a prefabricated fireplace unit. The flue can be purchased in 5-foot sections and is usually made of asbestos. The section at the end of this book has some ideas which may be helpful in building it.

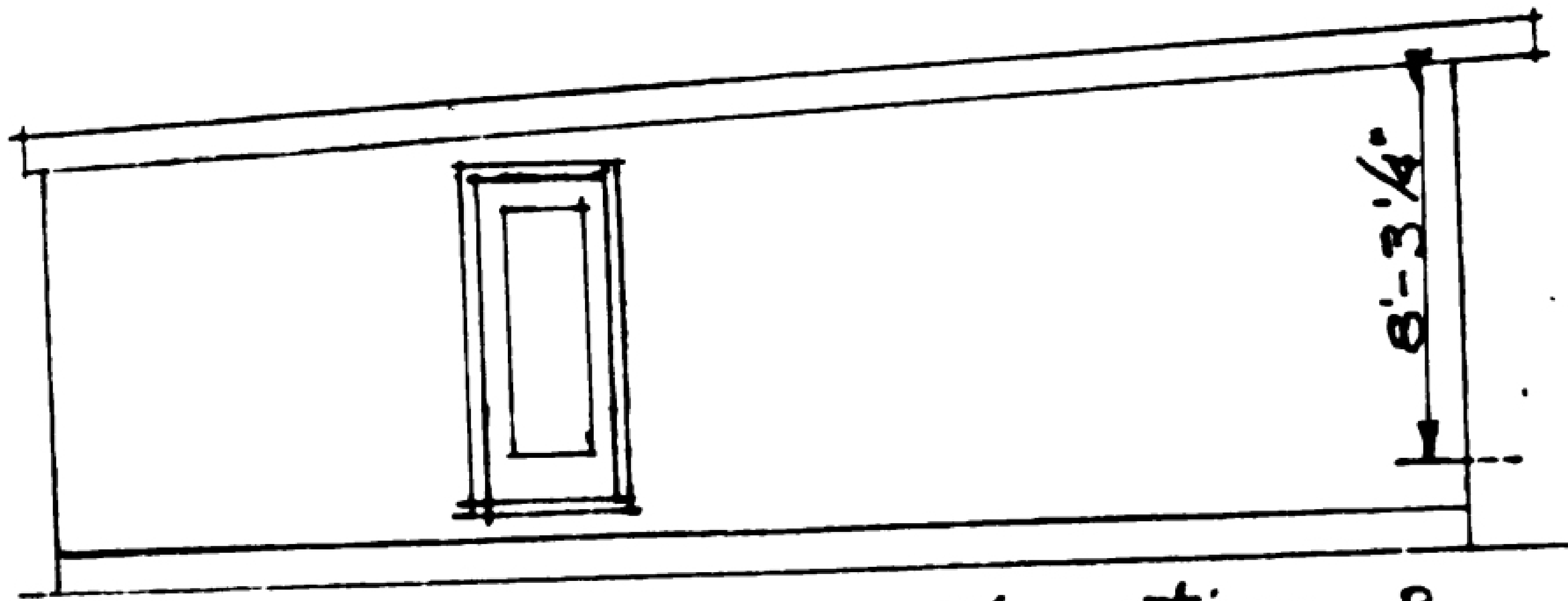
The overhead garage door which is used at the open end is relatively easy to install but will not be airtight. You may prefer to use two sets of glass french-type doors. The plan indicates both ways of enclosing this space.



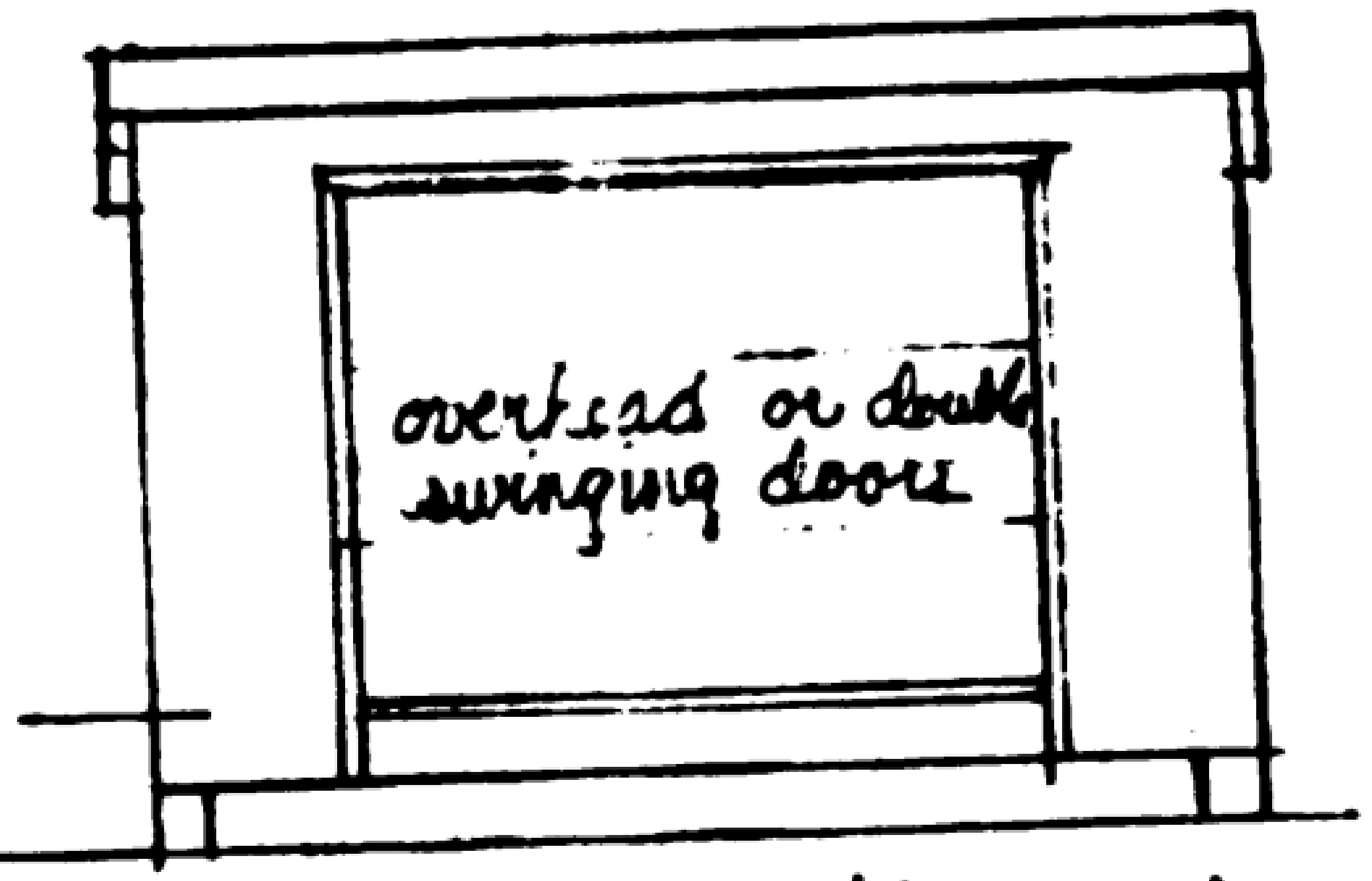
Elevation D



Elevation C

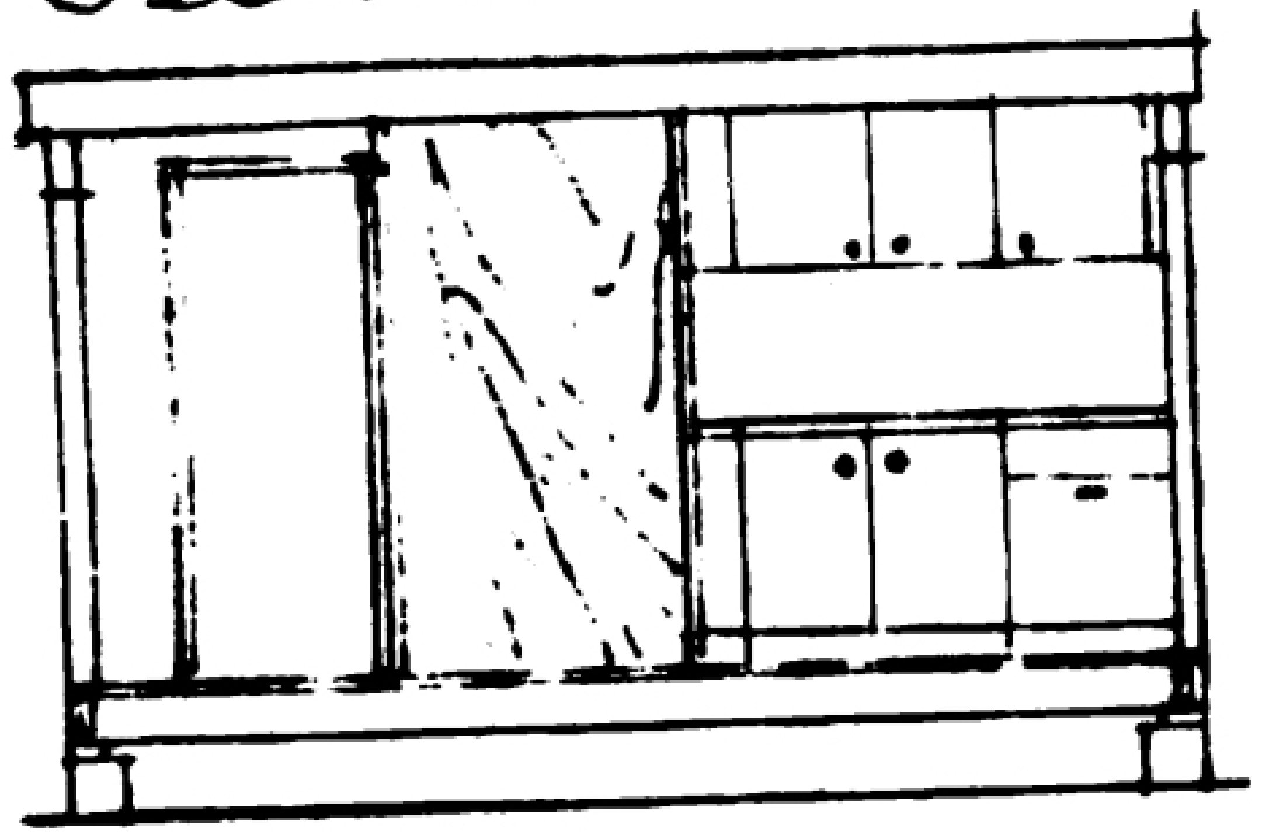


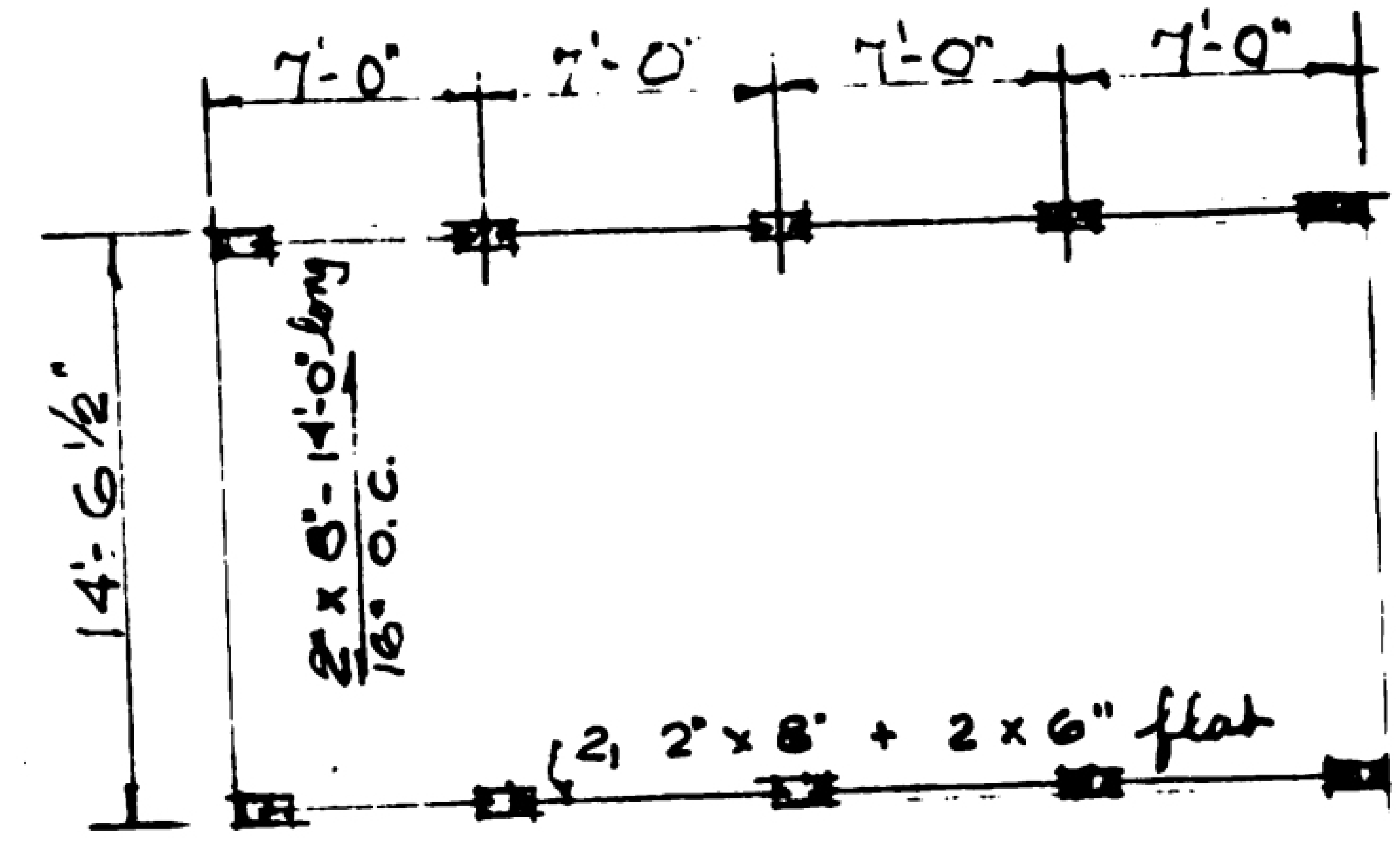
Elevation B.

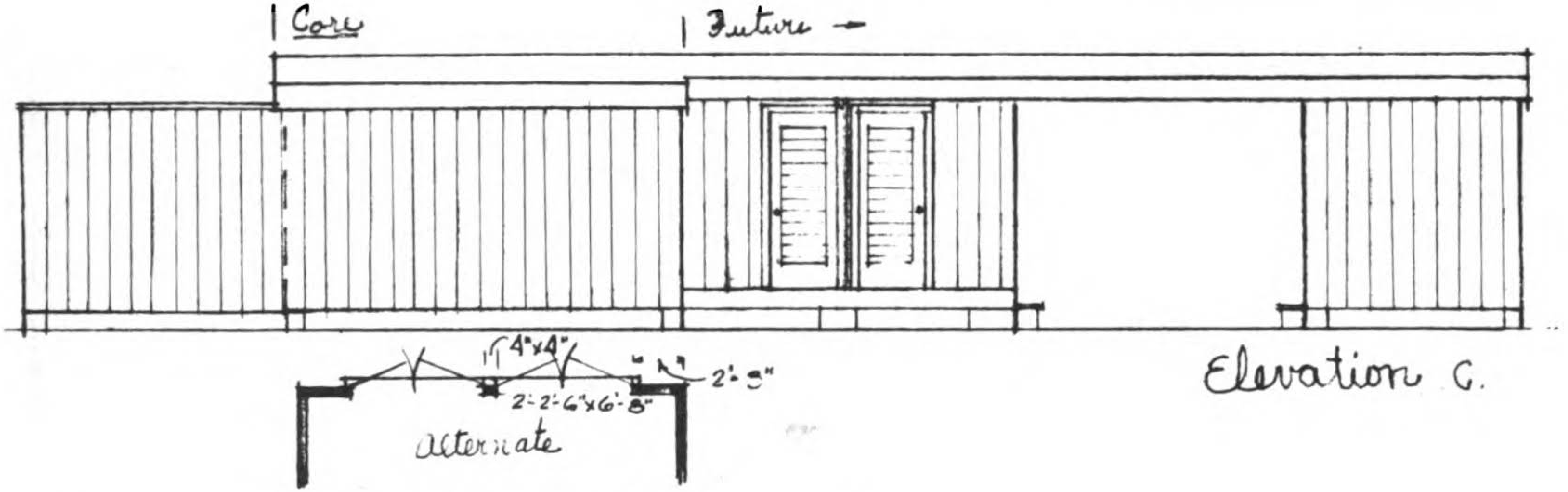


Elevation A

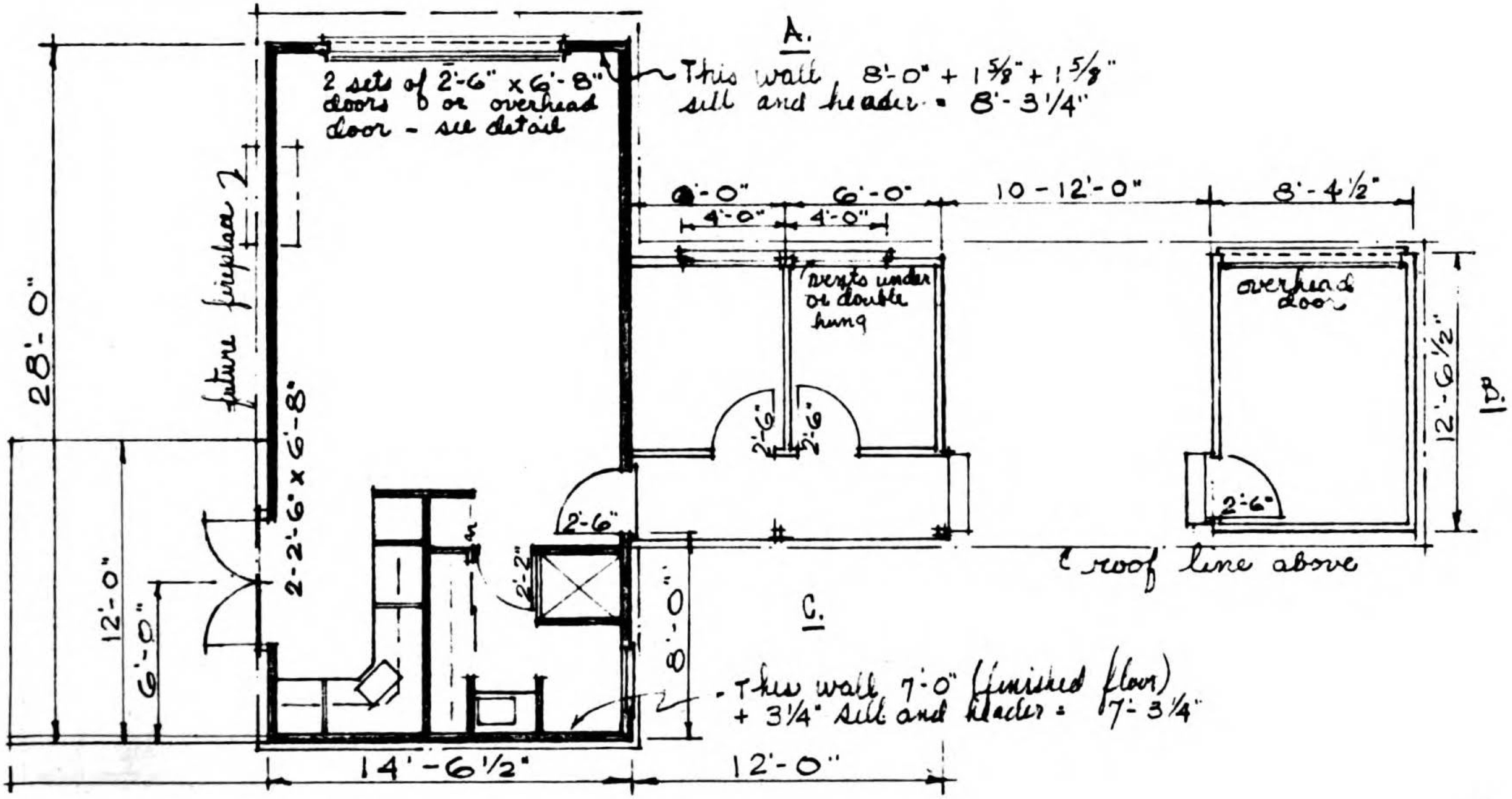
Section



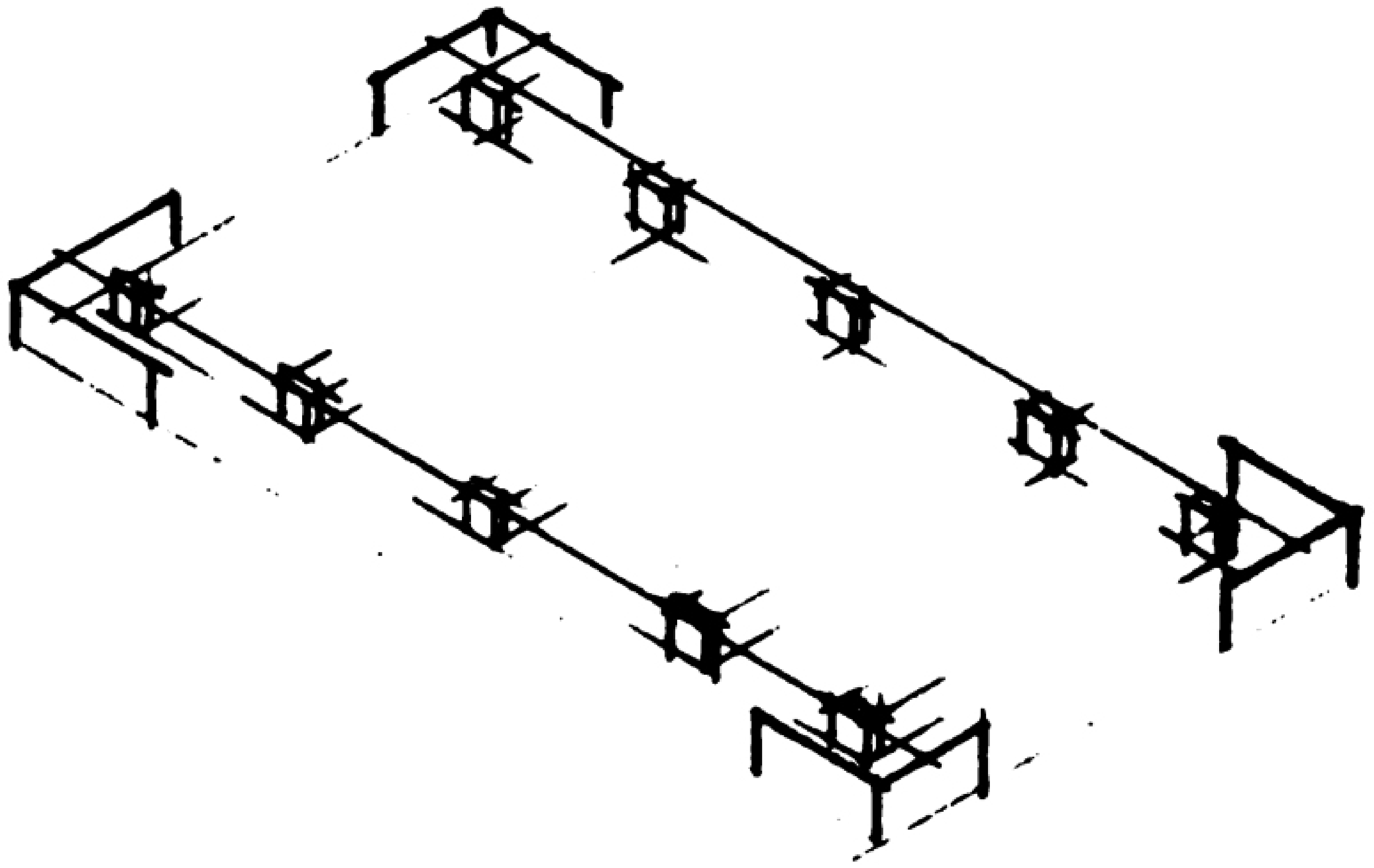


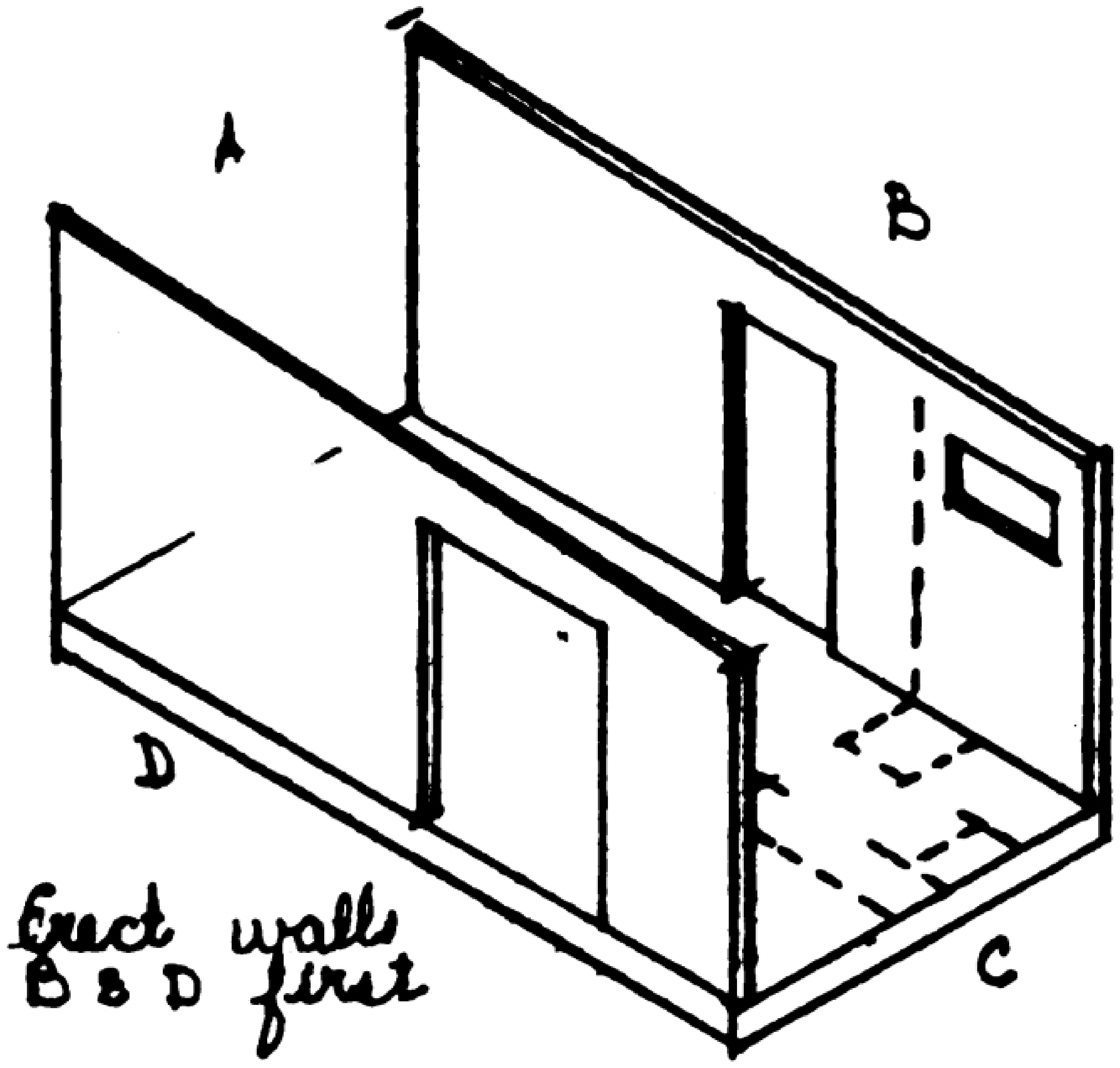

Core
Future →
4"x4"
2'-3"
2-2'-6"x6'-8"
alternate

Elevation C.

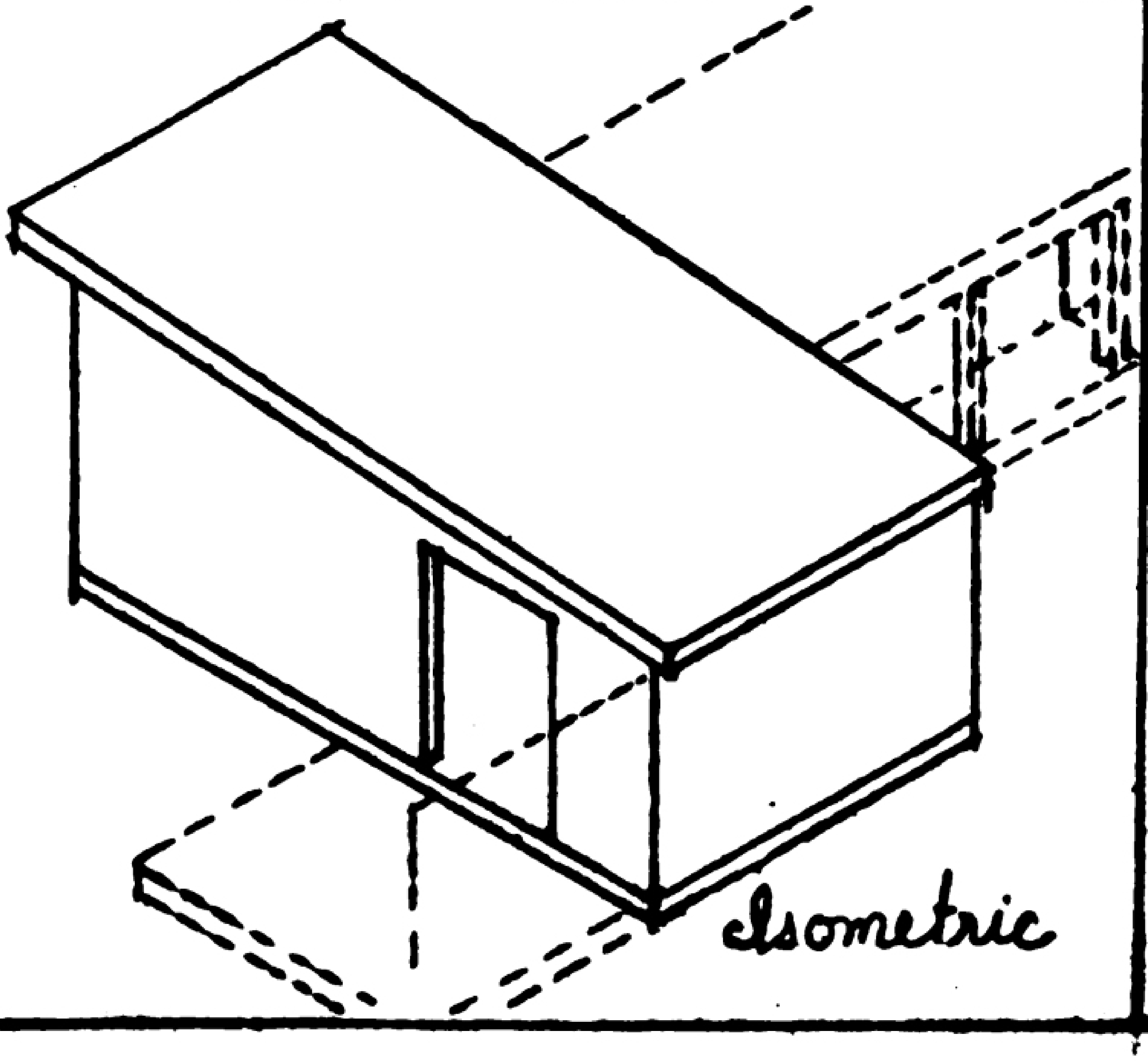

A.
2 sets of 2'-6" x 6'-8" doors or overhead door - see detail
This wall 8'-0" + 1 5/8" + 1 5/8" sill and header = 8'-3 1/4"
future fireplace
2-2'-6" x 6'-8"
28'-0"
12'-0"
6'-0"
2'-6"
2'-2"
8'-0"
4'-0"
6'-0"
4'-0"
4'-0"
10 - 12'-0"
8'-4 1/2"
vents under or double hung
2'-6"
2'-6"
overhead door
2'-6"
12'-6 1/2"
B.
℄ roof line above
C.
This wall 7'-0" (finished floor) + 3 1/4" sill and header = 7'-3 1/4"
14'-6 1/2"
12'-0"

Pier foundation

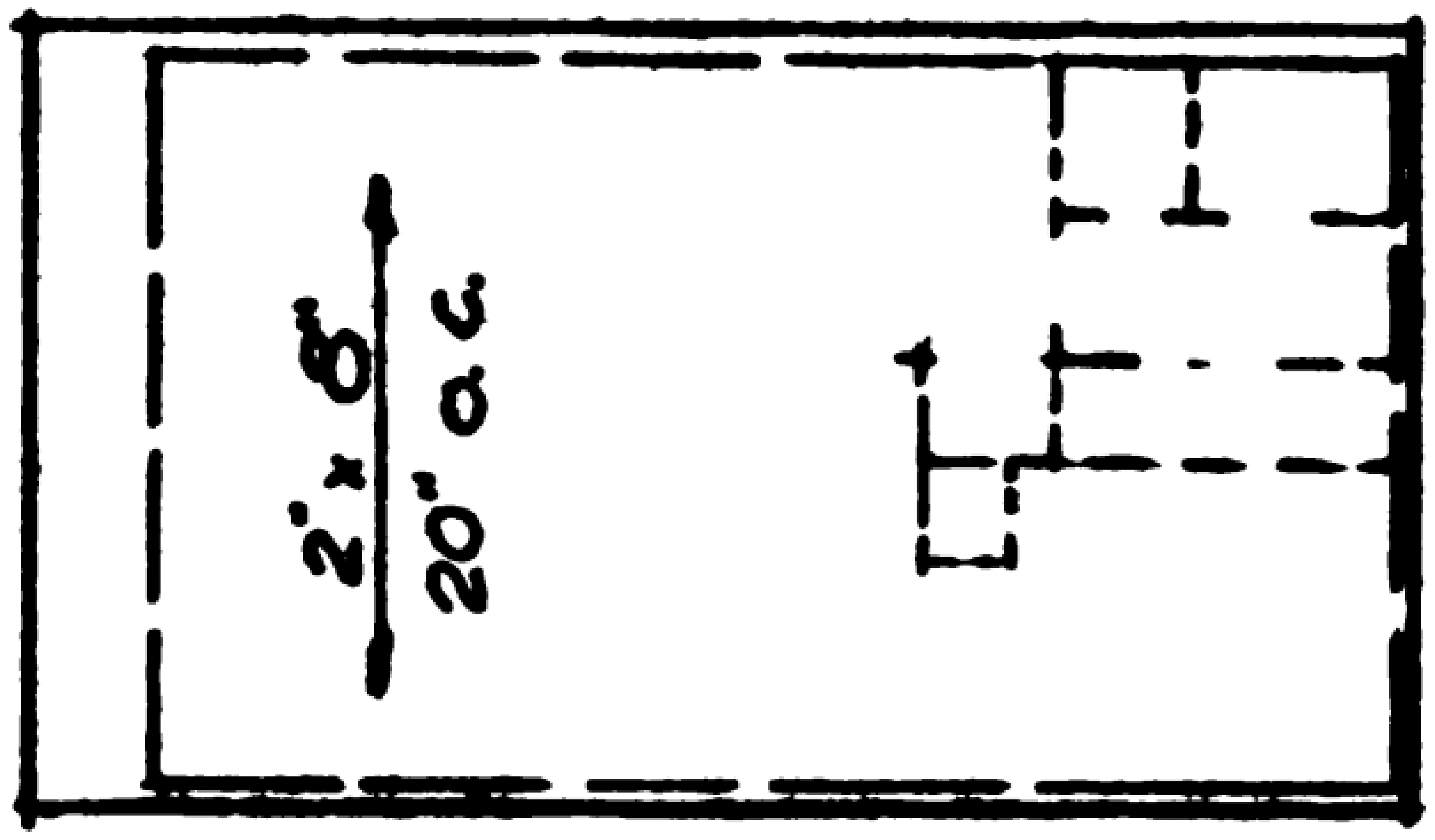




Erect walls B & D first

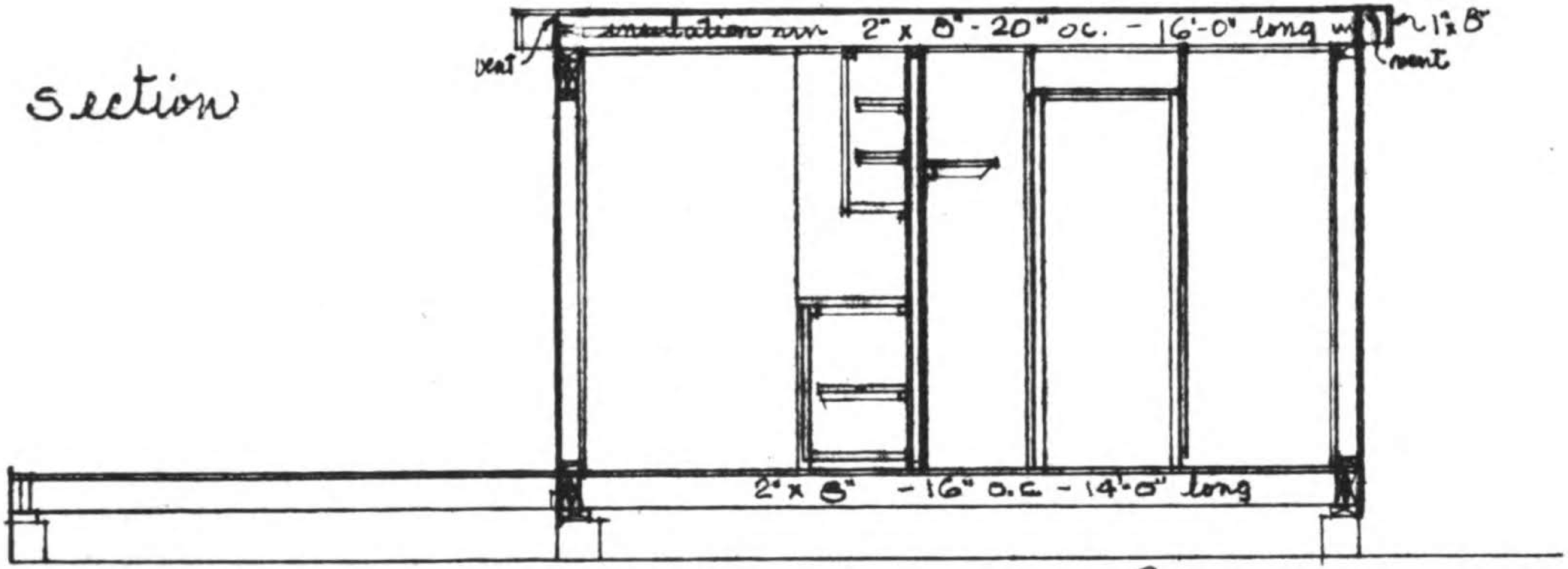


Isometric

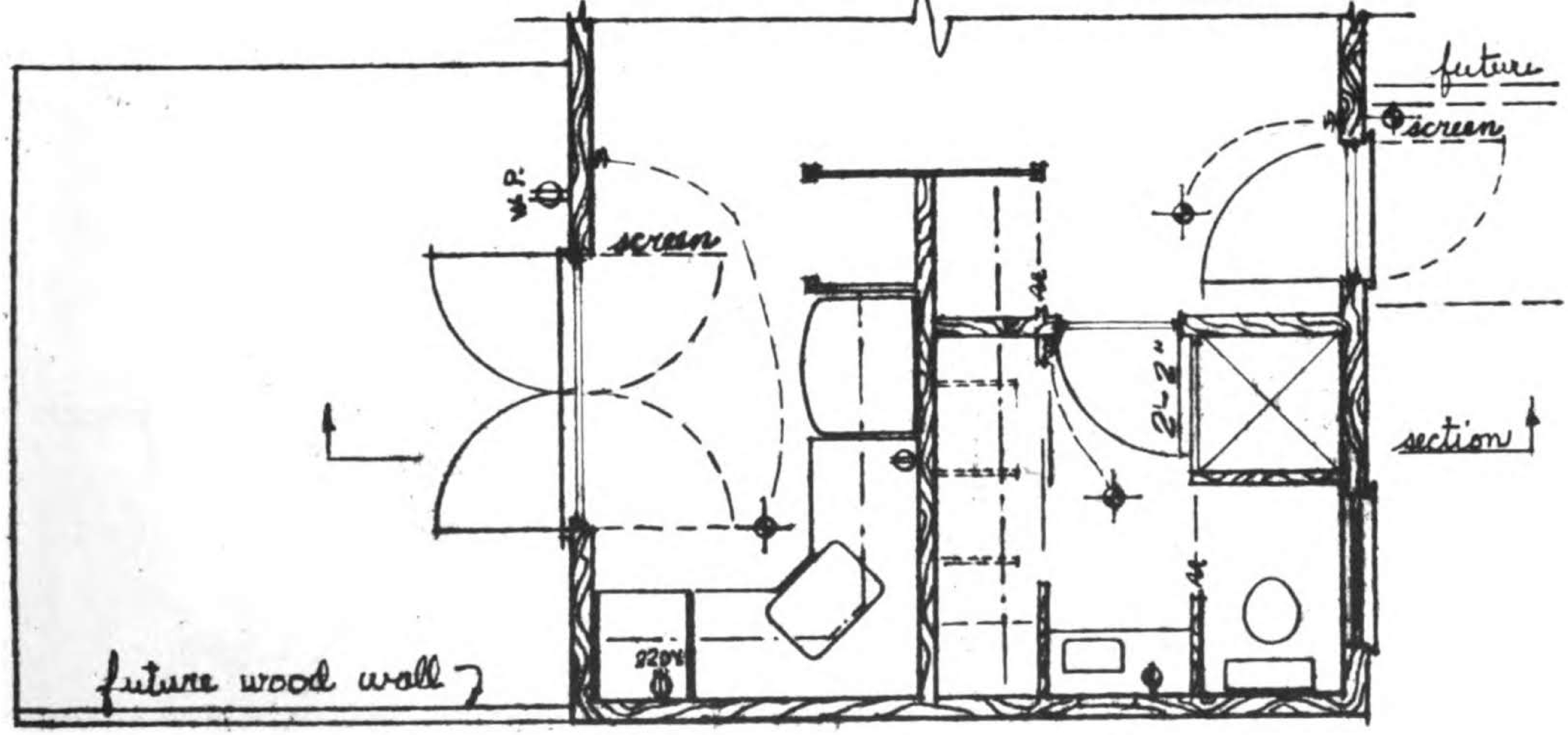


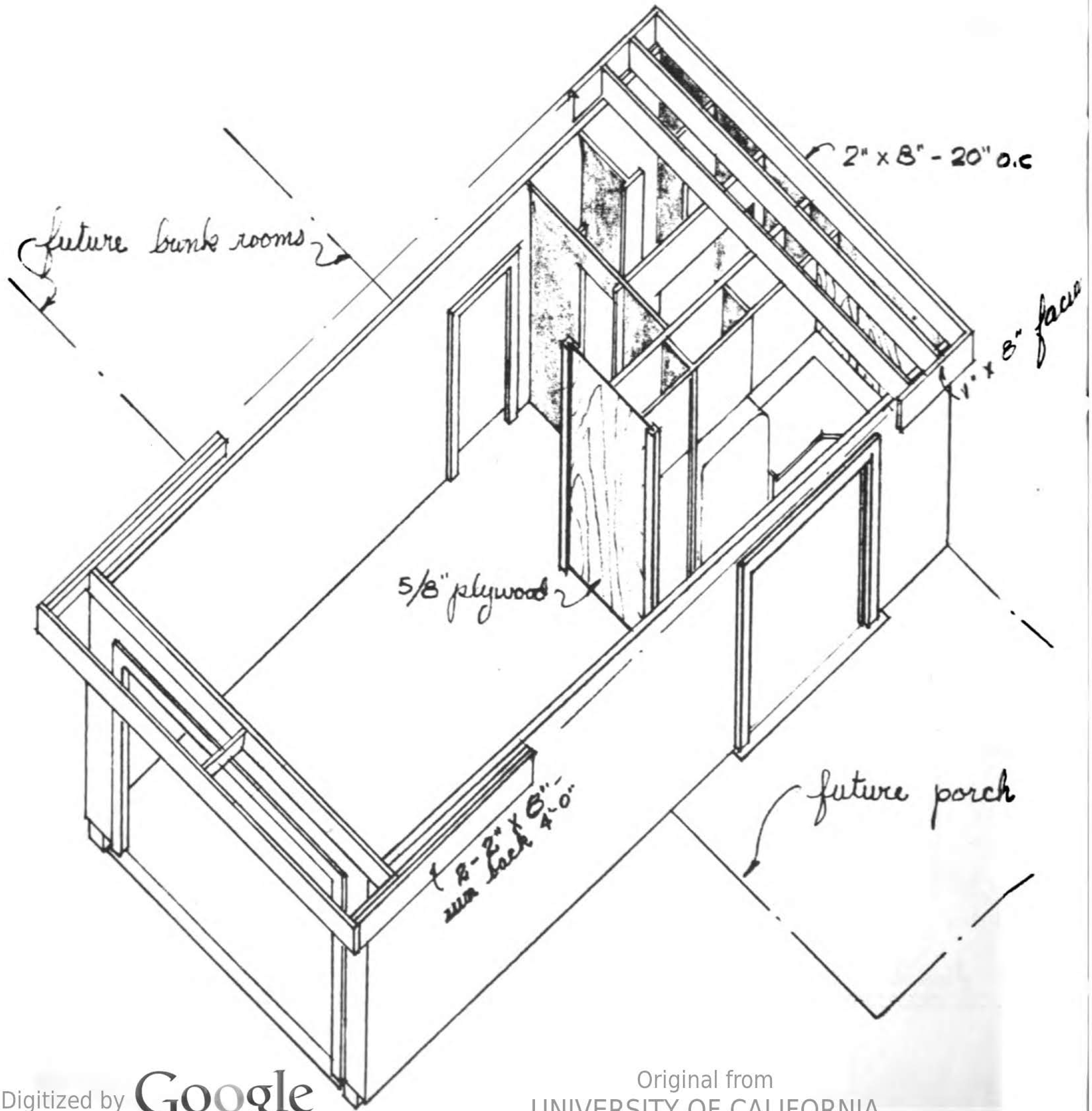
Roof plan

Section


insulation on 2" x 8" - 20" oc. - 16'-0" long w/ 1" x 8"
vent
vent
2" x 8" - 16" o.c. - 14'-0" long

Plan





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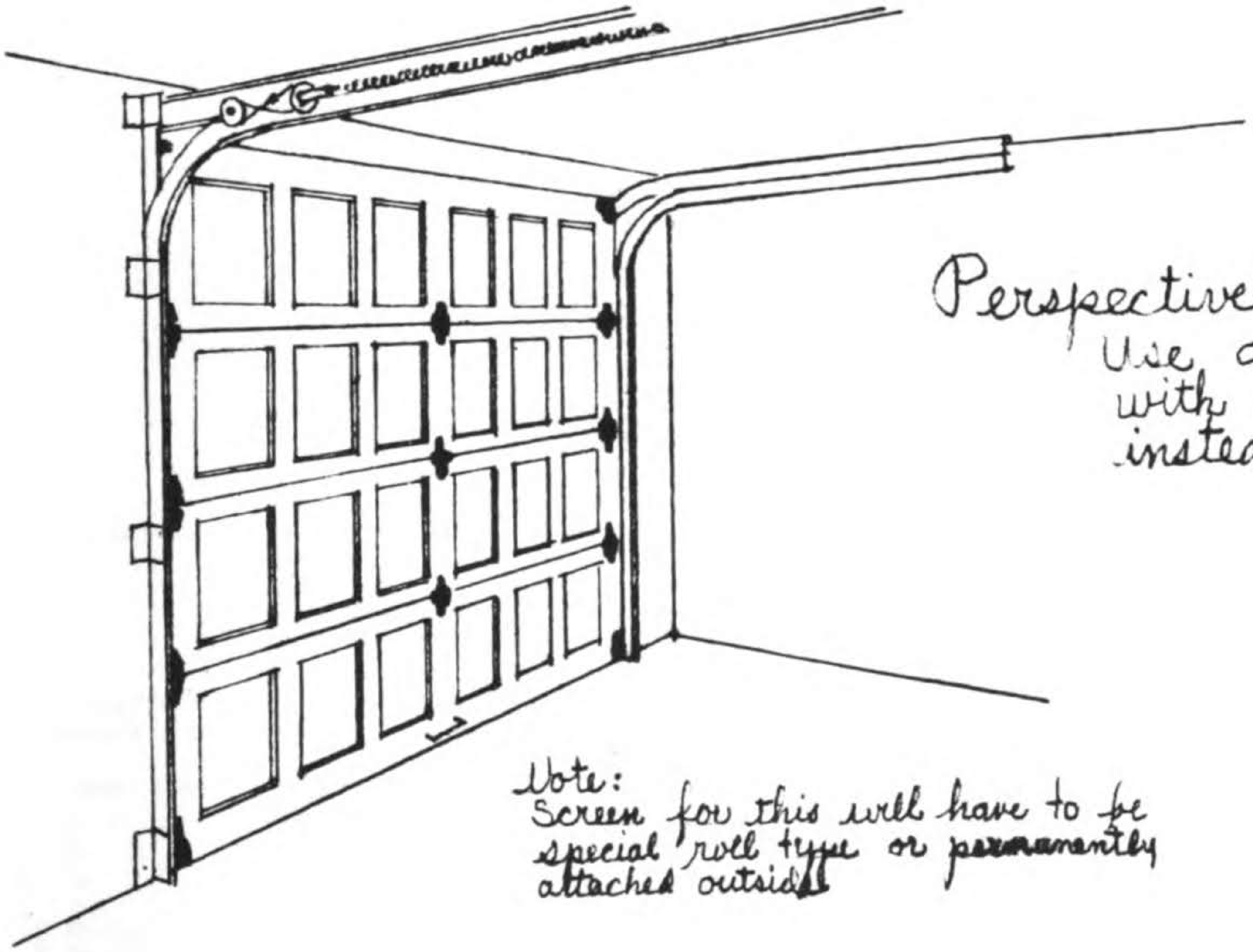
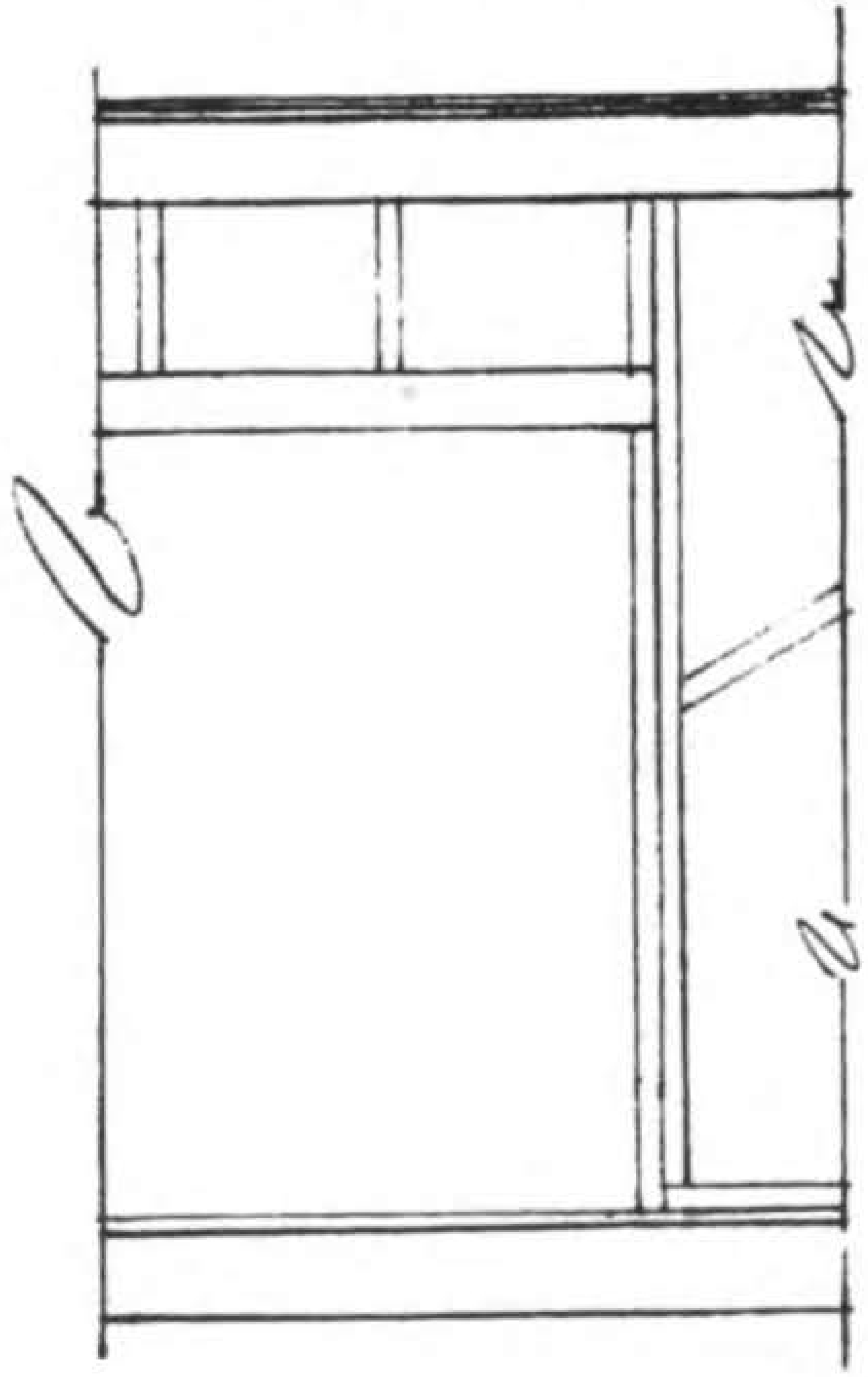
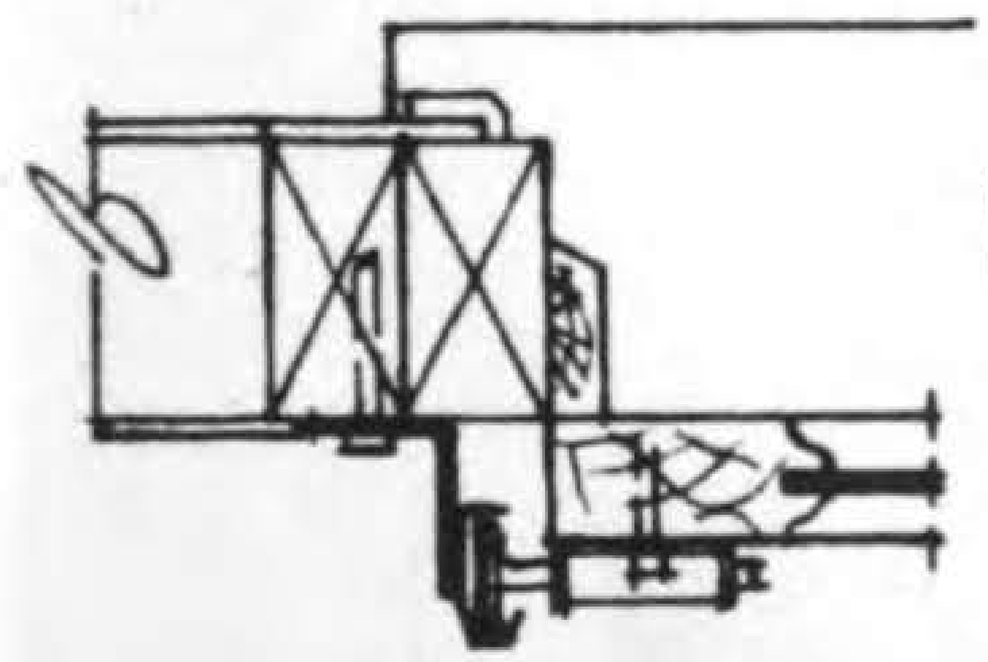


Perspective of Window End
Use overhead door
with glass panels
instead of plywood

Note:
Screen for this will have to be special roll type or permanently attached outside

Door Framing





Plan at door jamb

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Tighten bolts. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Now spike the outer header to the inner width. Nail down flooring. Install door and window sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out wall sections B and D on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame walls A and C.

Roof: Place roof joists in place and lay roofing boards. Coat roofing boards with asphalt cement. Place a layer of 15-pound roofing felt over. Use cold type of roof mastic and brush over felt. Start laying selvage edge of roofing material at end C. Follow directions on the roll.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed at top, bottom, and at herringbone bridging.

Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of the book.

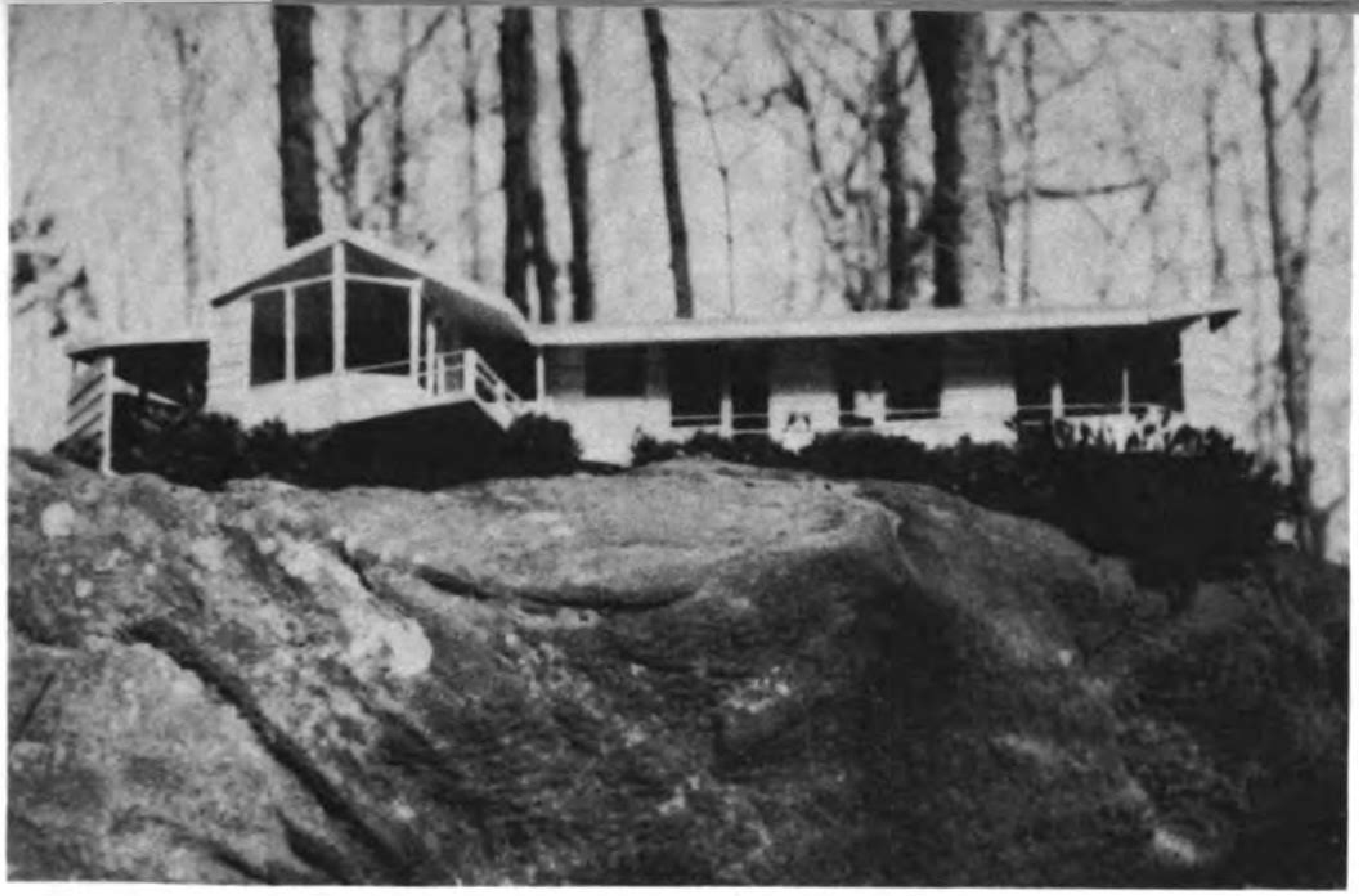
Insulation: Medium- or full-thickness Fiberglas or equivalent stapled between roof joists. Use medium thickness in side walls.

Install mechanical and electrical equipment as seems advisable.

MATERIALS LIST (Core Unit Only)

Concrete for footings			½ cu. yd.
Block for piers			depends upon depth
10	anchor bolts		½ in. x 8 in.
19	2 x 4	14 ft. long	Elev. C and sole
54	2 x 4	8 ft. long	side walls A, B, D
2	2 x 4	10 ft. long	partition sole and sill
32	2 x 8	14 ft. long	floor joists and header (girder)
22	2 x 8	16 ft. long	roof joists
5	2 x 6	14 ft. long	sill
1	4 x 4	8 ft. long	post if double door (Elev. A) is used

100 lineal ft. of 1 x 8 fascia board
110 lineal ft. of 1 x 2 doorstop
500 board ft. of flooring
680 board ft. of roofing
700 board ft. of siding (vertical)
1,000 board ft. of interior finish
400 sq. ft. of interior ceiling finish (plus waste)
1,000 sq. ft. of medium-thick insulation
3 (or 7) 2 ft. 6 in. x 6 ft. 8 in. exterior doors and screen doors (alternate of 7 doors if overhead door not used)
1 2 ft. 2 in. x 6 ft. 6 in. interior door (bath)
1 9 ft. x 7 ft. upward-acting door (Elev. A)
1 cellar sash (about 16 in. x 33 in.)
1,550 sq. ft. of roofing material (3-ply) and sufficient mastic
3 sheets of ⅝ or ¾ in. x 4 ft. x 8 ft. waterproof plywood
Electric wiring: 110-220 volt, 3-wire system
Plumbing: piping, pump, tank, water heater, seat, basin, shower, sink
Septic tank
Range
Refrigerator
Franklin stove or fireplace materials

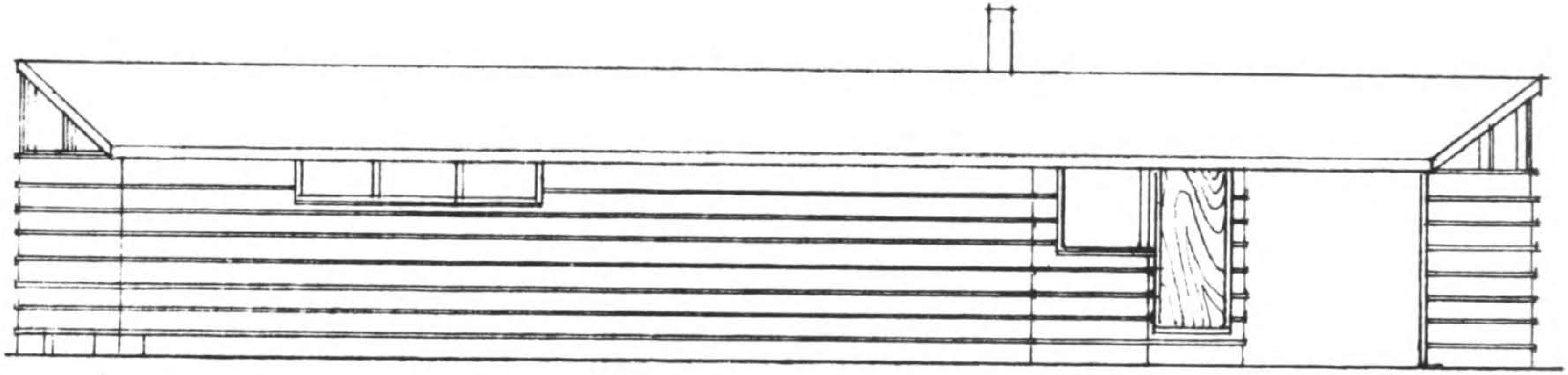


PLAN 2

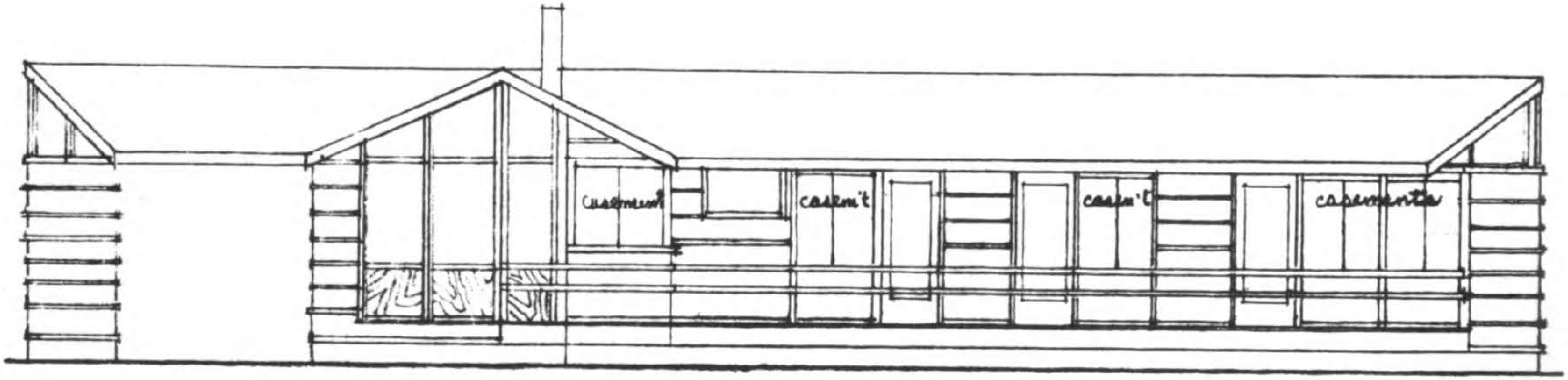
Cantilevering the porch of this cottage out over the water would give a dramatic effect. The shell of this cottage should be built all at one time. You'll note that I have shown an alternate living-room arrangement in the sketches. The fireplace arrangement using masonry would be very good-looking, but it's hard work. The more simple Franklin stove would give almost as much heat. By using a studio couch in the dining area, you would almost have an extra bedroom.

The siding made from plywood with horizontal batten strips would be fairly easy to build. You'll find that it is one of the easiest and quickest ways of putting siding on any surface. You could use this system on almost any of the other cottages.

One suggestion about the large glass areas—use demiplate or seconds of real plate glass. Sometimes you can find a glazier who has replaced a store-front glass and can buy the damaged piece. Have him cut the glass at the site so that it will fit properly.

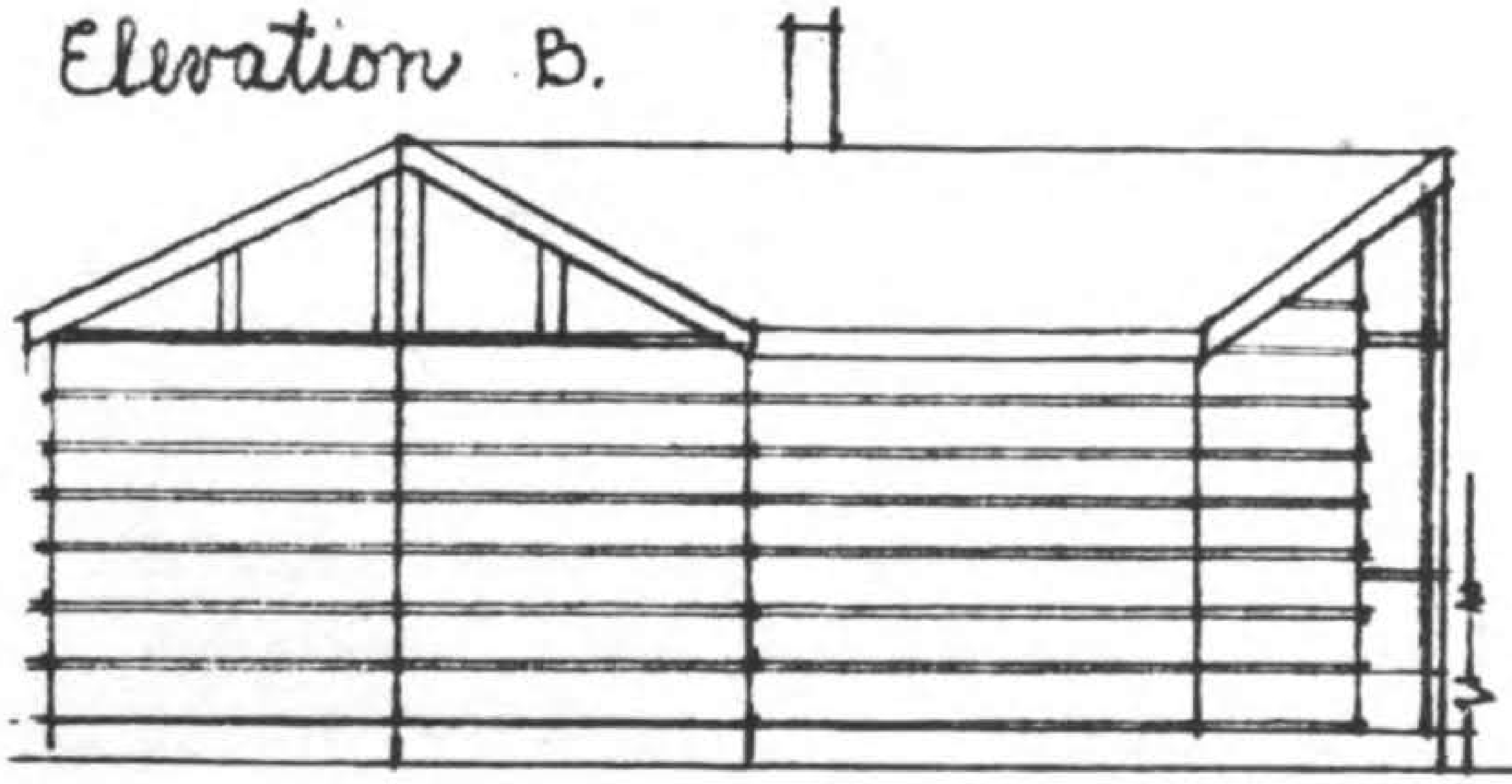


Elevation C.

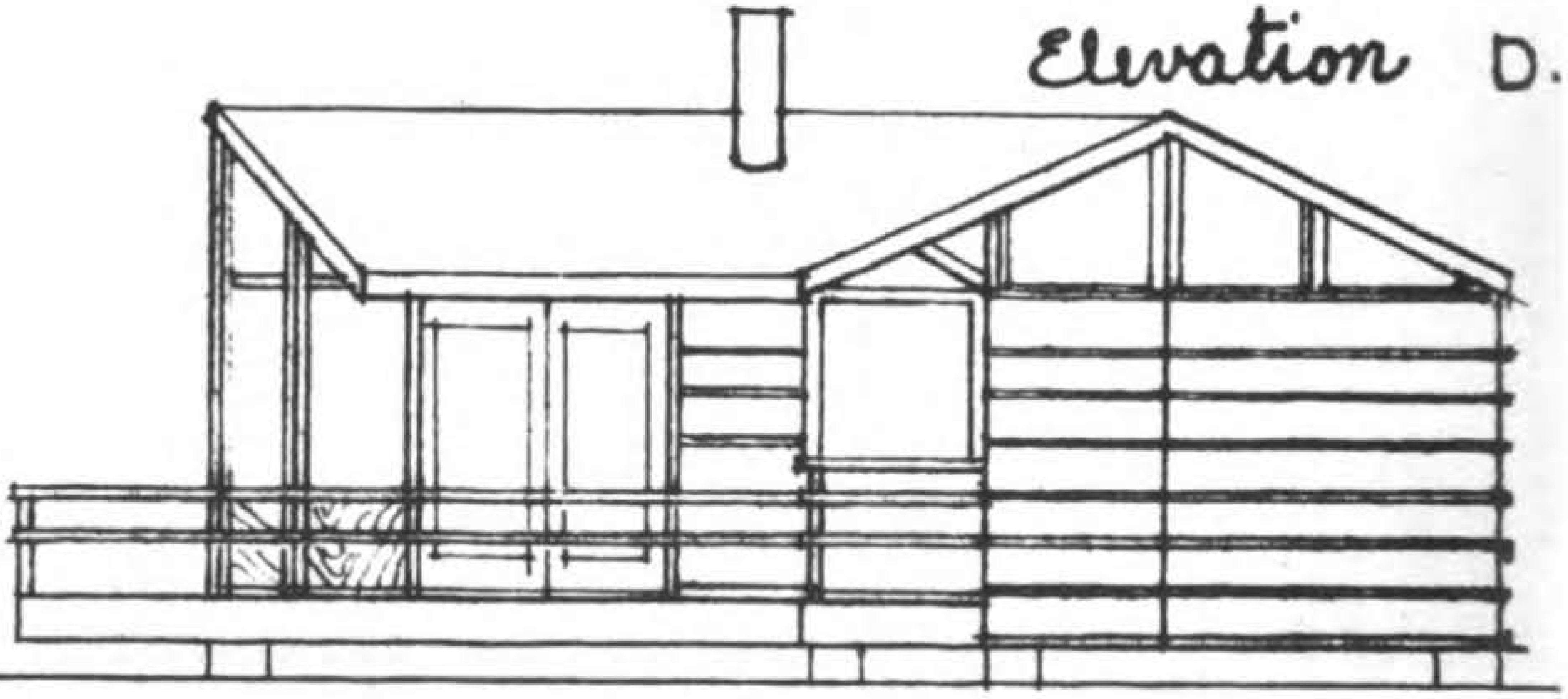


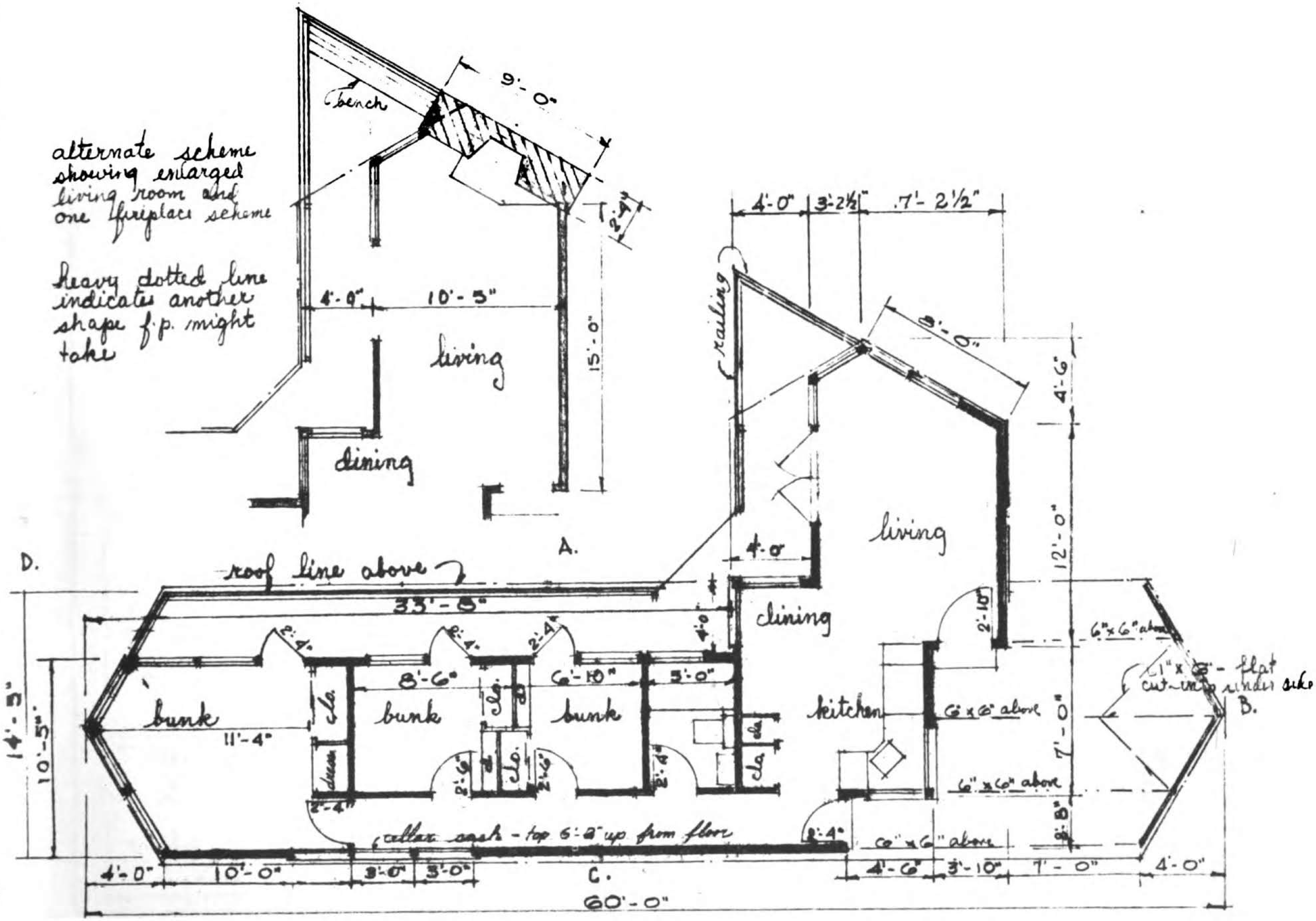
Elevation A.

Elevation B.



Elevation D.





alternate scheme showing enlarged living room and one fireplace scheme

heavy dotted line indicates another shape f.p. might take

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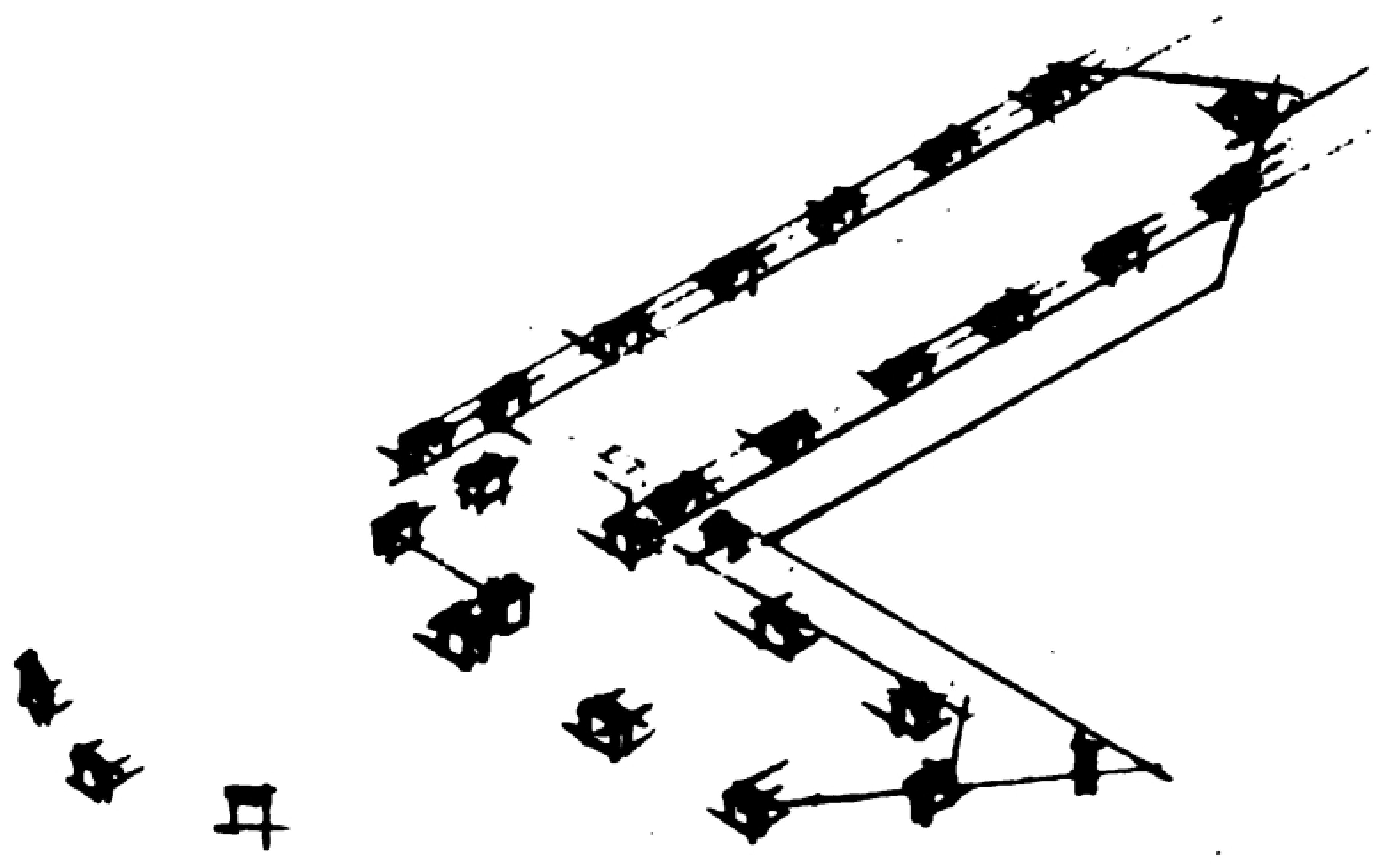
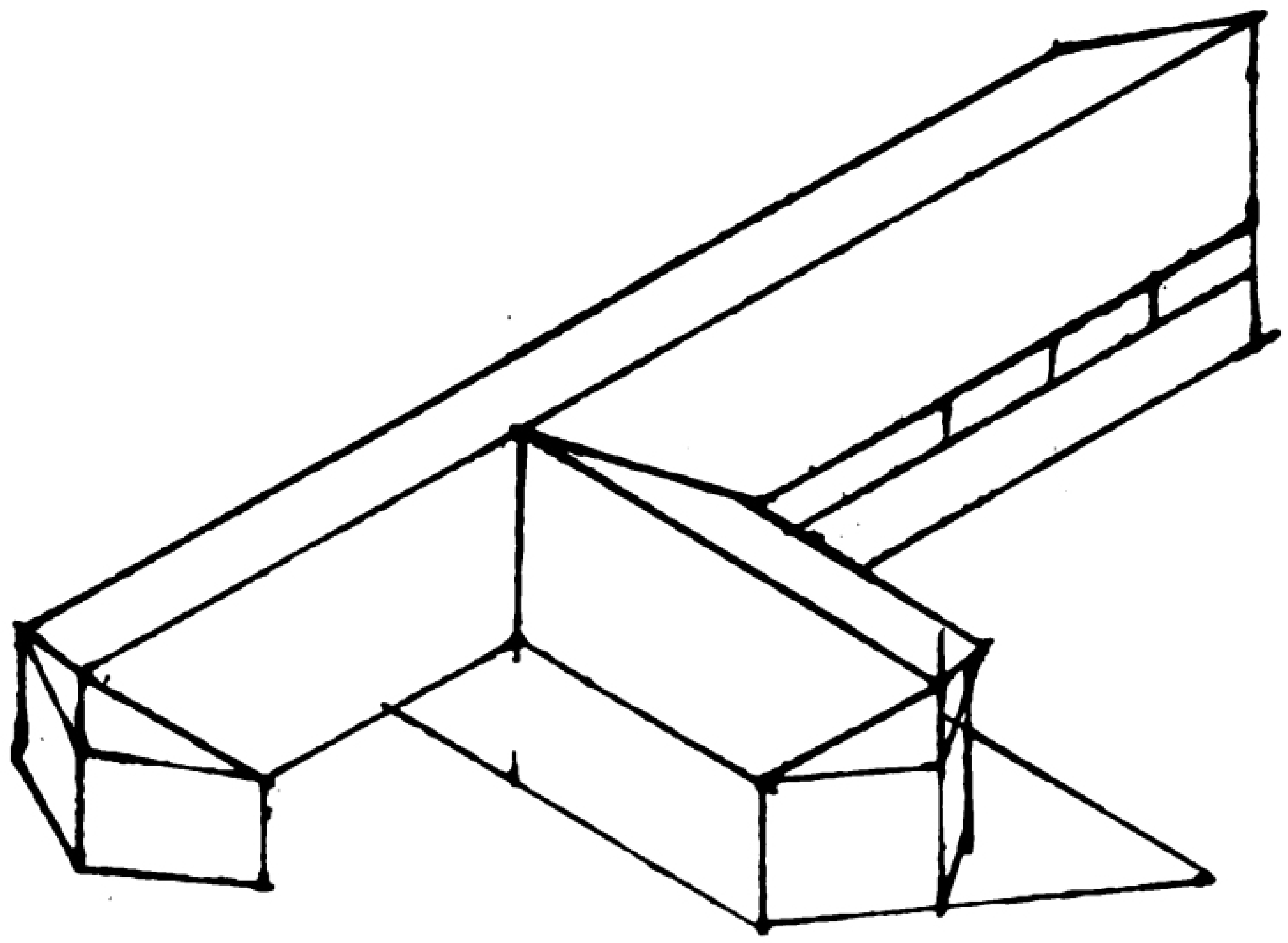
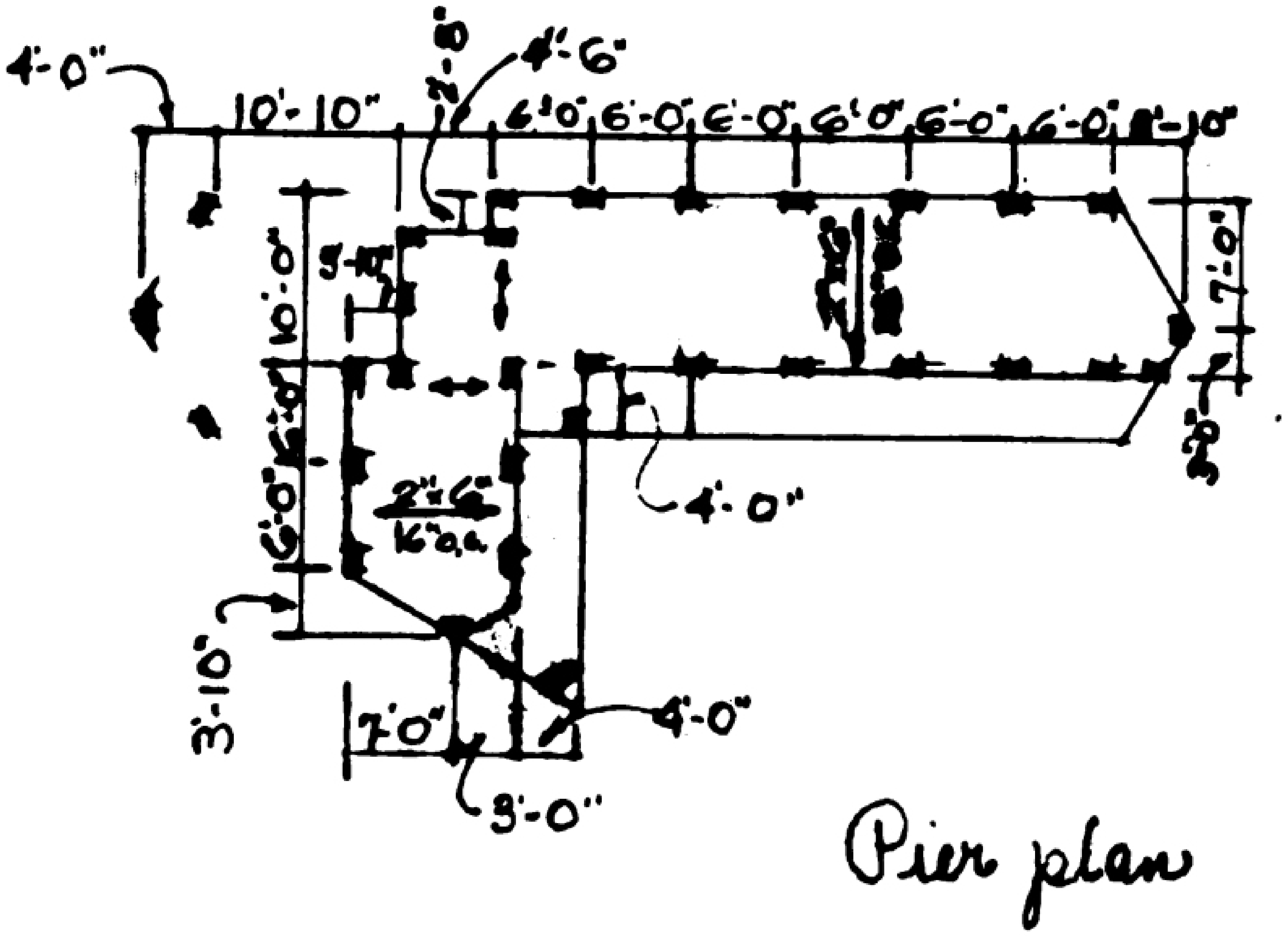


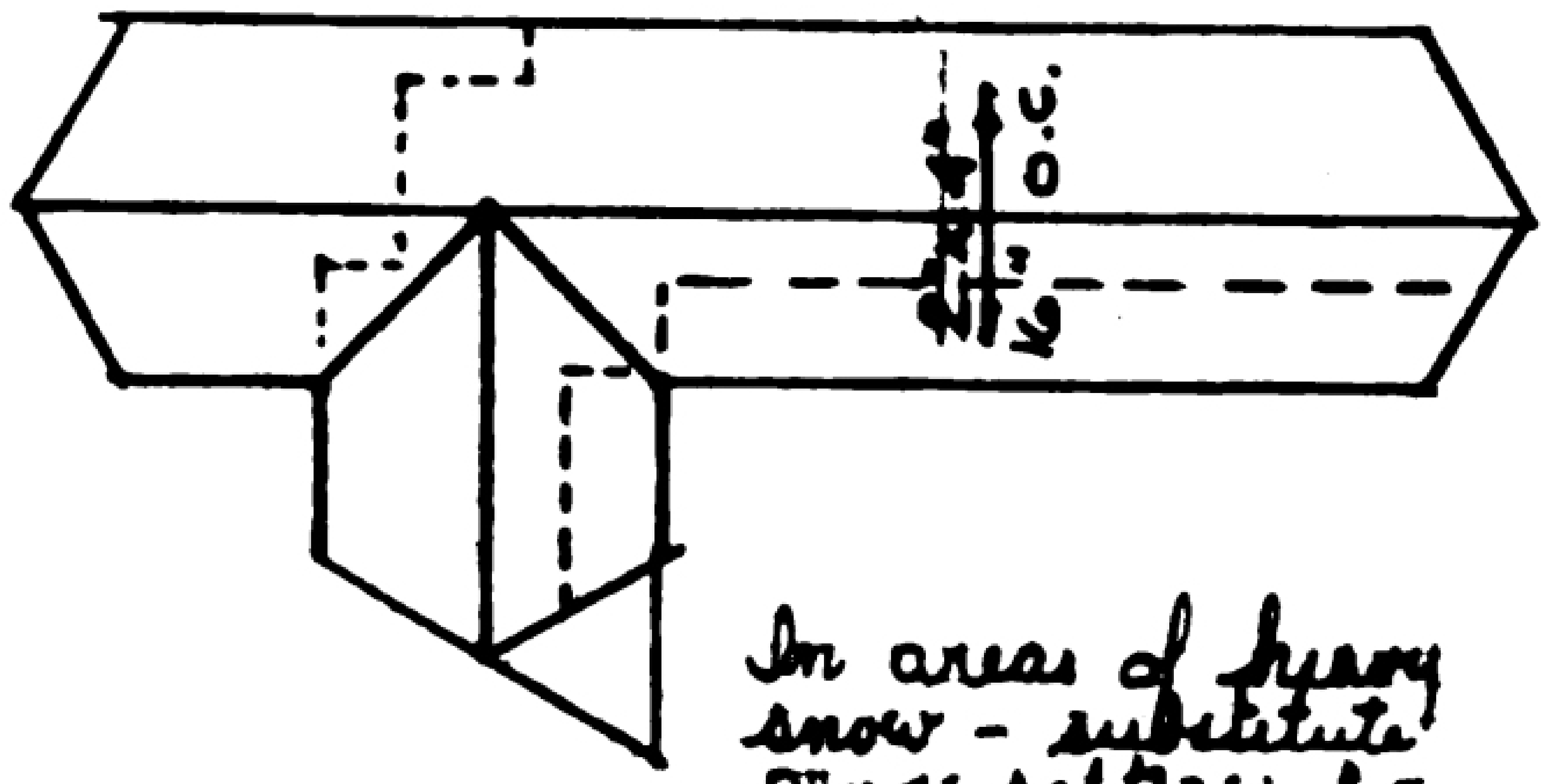
Pier - isometric



Roof outline



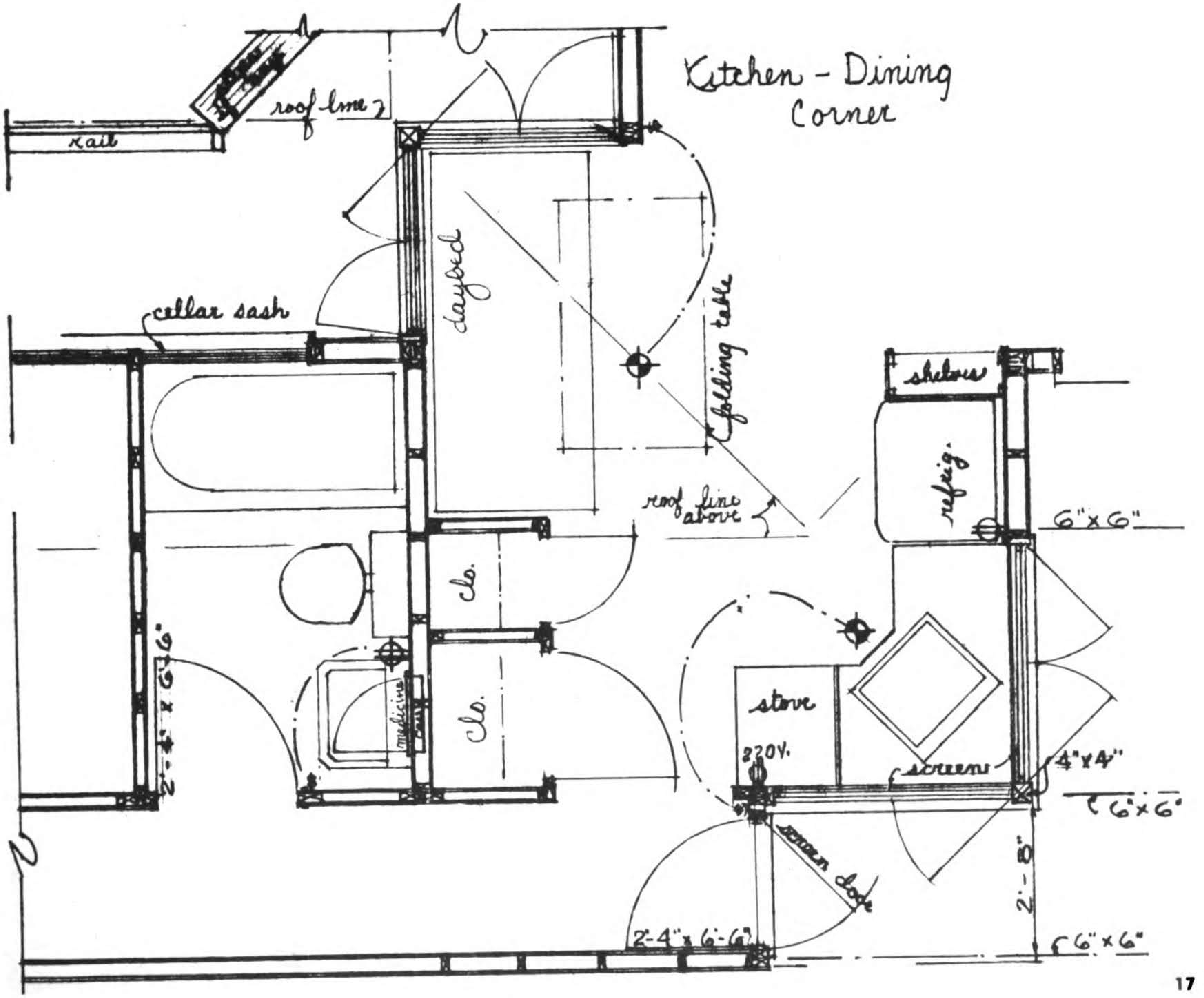
Pier plan

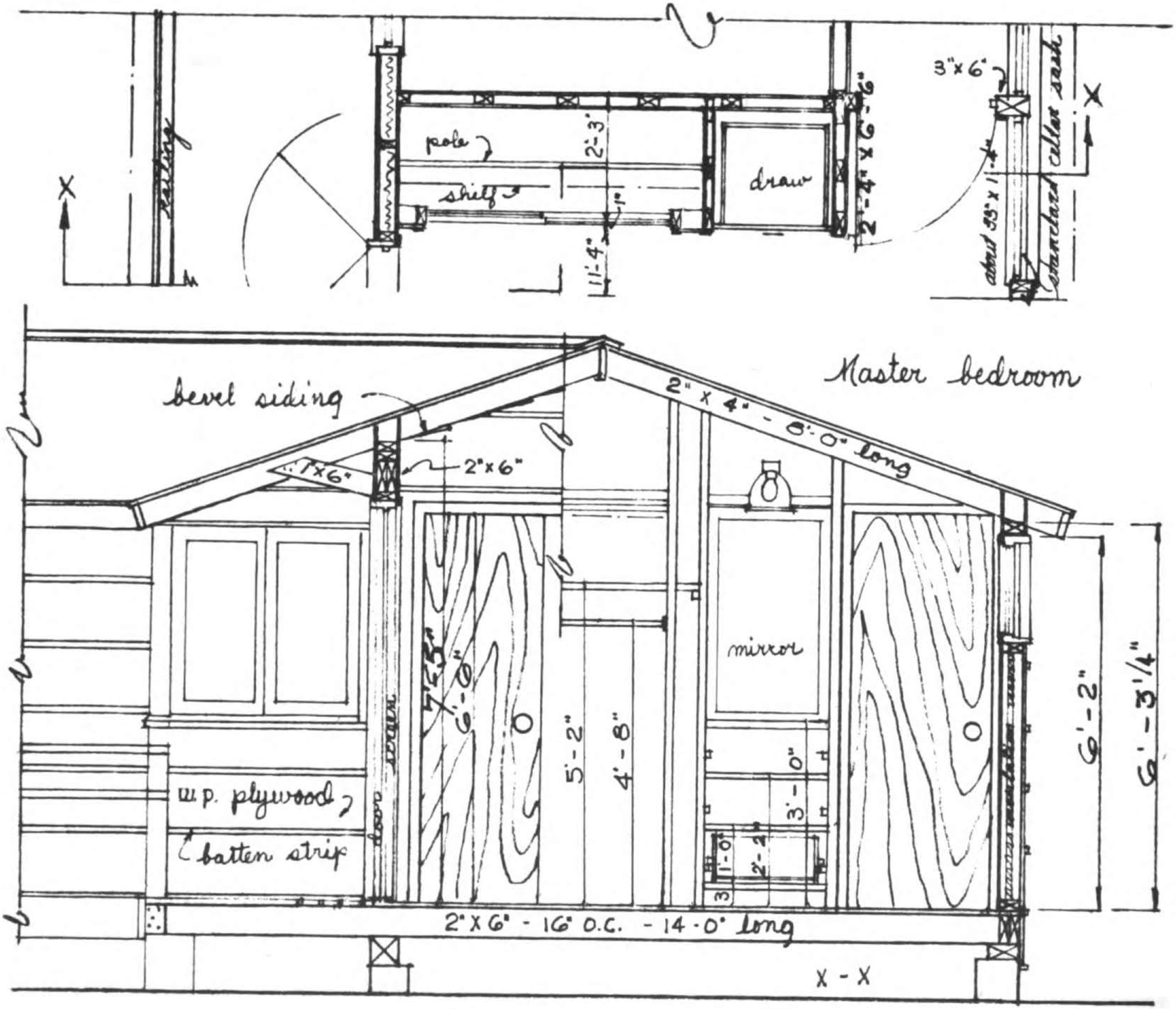


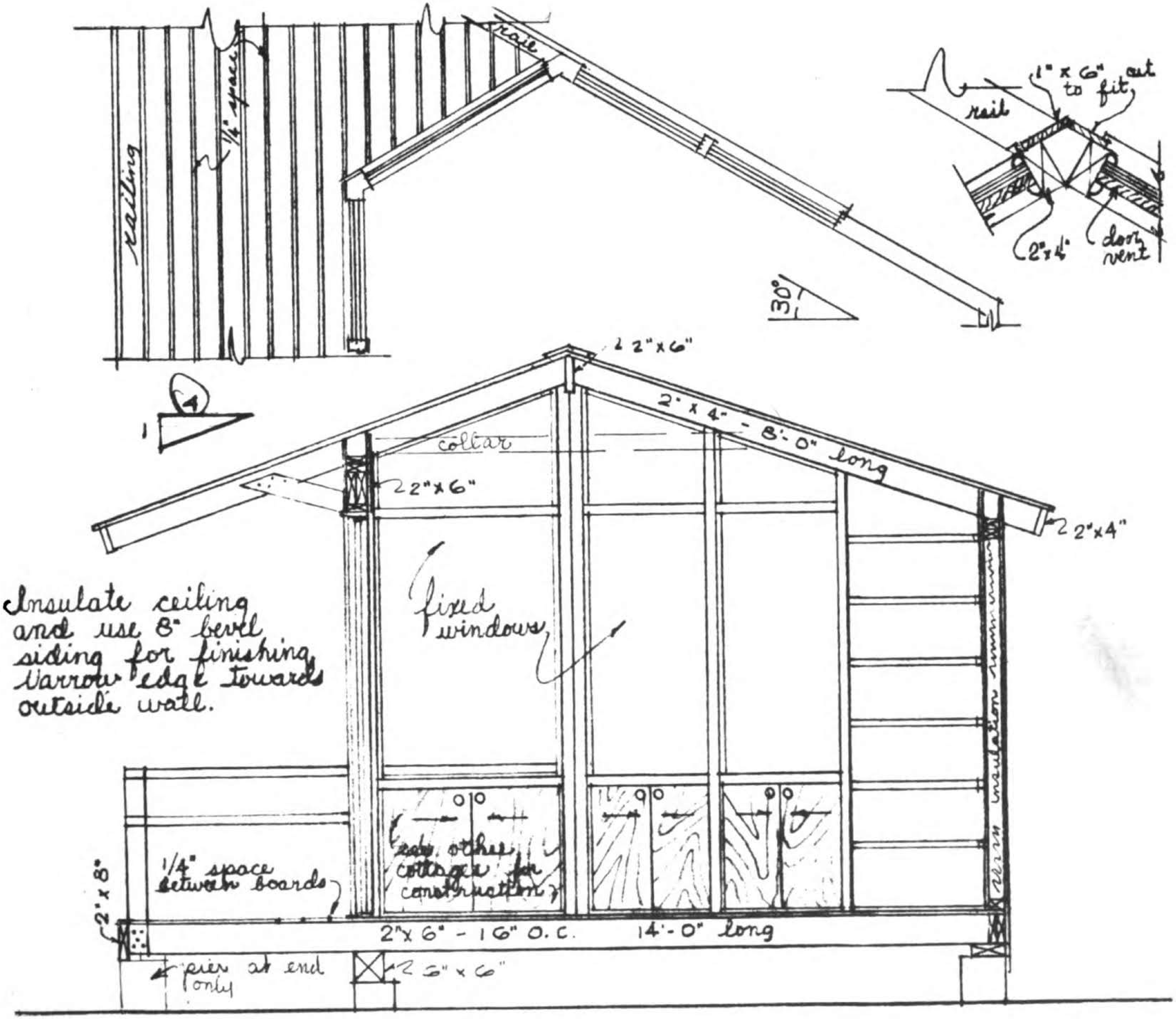
In areas of heavy snow - substitute 2"x6" rafters for 2"x4"

Roof plan

Kitchen - Dining Corner




railing
X
pole
2'-3"
shelf
1"
11'-4"
draw
2-2"x6"-6'
3"x6"
X
cellar sash
standard
about 33" x 1'-4"
Master bedroom
bevel siding
2"x4" - 8'-0" long
1"x6"
2"x6"
7'-3"
6'-0"
screen door
5'-2"
4'-8"
mirror
3'-0"
2'-2"
1'-0"
3
6'-2"
6'-3 1/4"
w.p. plywood
batten strip
2"x6" - 16" O.C. - 14'-0" long
X - X



Insulate ceiling and use 8" bevel siding for finishing. Narrow edge towards outside wall.

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Tighten bolts. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Spike outer header to the inner width. Where joists run through to form balcony, nail 2-by-8-inch fascia piece in place to give floor rigidity. Be sure that the ends of these pieces rest on, or are tied to, some masonry. Nail down flooring. Install door and window sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out long wall sections on floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame all other walls.

Roof: Place roof rafters in place and lay roofing boards. Be sure to use collar pieces. Use roll roofing or shingles. Apply them as described in construction section of this book.

Side-wall Finish: Nail waterproof or exterior-grade plywood to exterior wall. Apply batten strips.

Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of the book.

Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof rafters. Use medium thickness in walls.

Finish the interior as desired. Install mechanical and electrical equipment.

MATERIALS LIST (Core Unit Only)

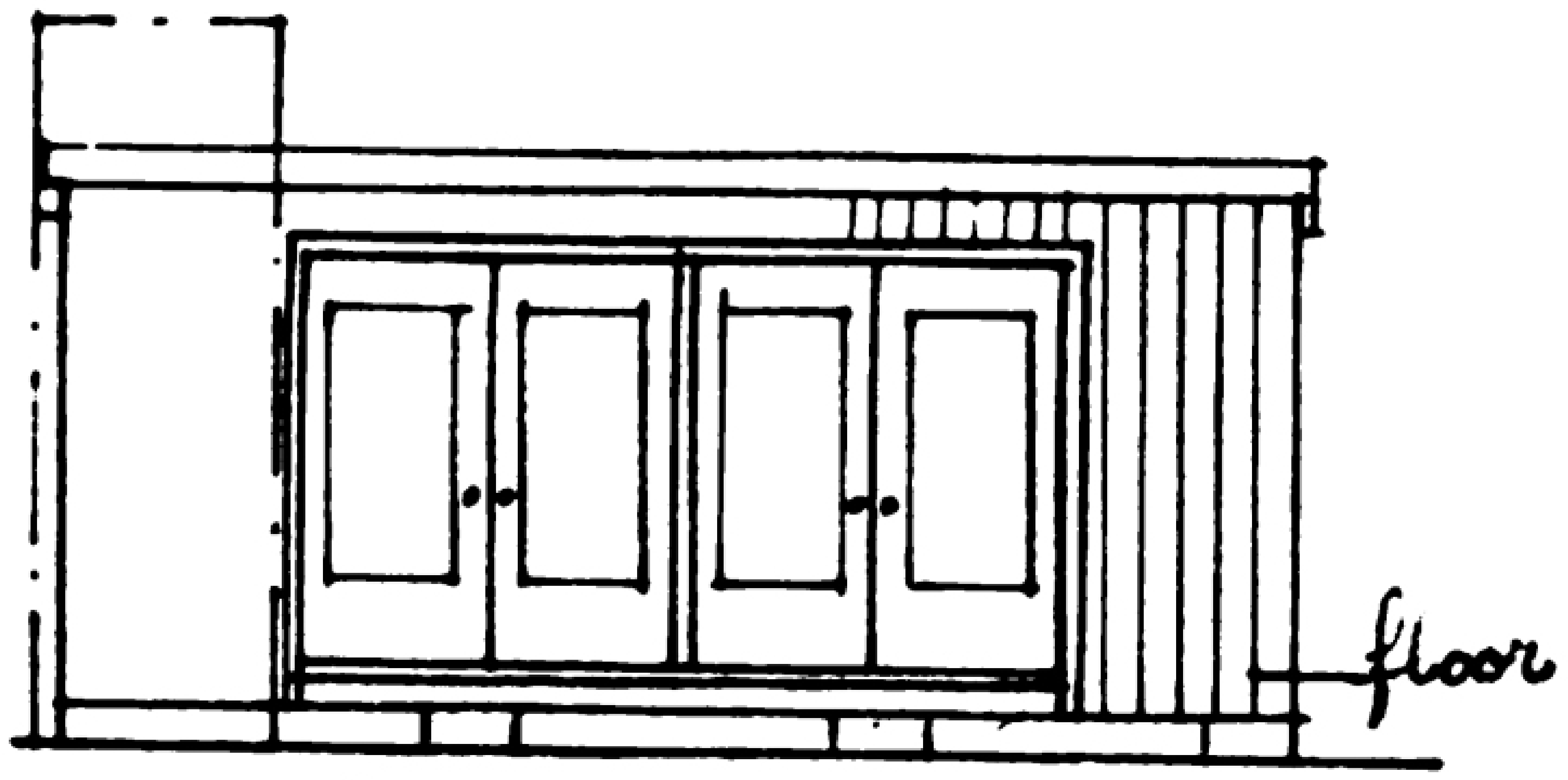
Concrete for footings	1¼ cu. yd.
Block for piers	depends upon depth
31 anchor bolts	½ in. x 8 in.
124 2 x 4 8 ft. long	walls, roof rafters, sole, windows, etc.
44 2 x 4 10 ft. long	wall and partition framing
28 2 x 4 12 ft. long	walls, sole, header
46 2 x 4 14 ft. long	porch rails, walls, sole, header
21 2 x 4 16 ft. long	framing, sole, header
13 2 x 6 12 ft. long	sills, headers, ridge
44 2 x 6 14 ft. long	floor joists
9 2 x 6 16 ft. long	sills
3 2 x 6 20 ft. long	ridge
2 2 x 8 14 ft. long	porch fascia
2 2 x 8 16 ft. long	porch fascia
1 6 x 6 10 ft. long	girder
3 6 x 6 14 ft. long	girder
2 6 x 6 16 ft. long	girder
1 6 x 6 18 ft. long	girder
950 sq. ft. of flooring	
1,500 sq. ft. of roofing	
15 sheets 4 ft. x 8 ft. x	¼ or ⅜ in. waterproof or exterior-grade plywood
8 sheets 4 ft. x 12 ft. x	¼ or ⅜ in. waterproof or exterior-grade plywood
30 sheets 4 ft. x 8 ft. x	¼ in. interior-grade plywood
8 sheets 4 ft. x 8 ft. x	¼ in. interior-grade plywood
4 sheets 4 ft. x 8 ft. x	⅝ or ¾ in. plywood (closets and cabinets)
2,400 lineal ft. of 1 x 2 batten strips for interior and exterior	
700 sq. ft. of ceiling finish, plus waste	
1,400 sq. ft. of medium-thick insulation	
3 2 ft. 4 in. x 6 ft. 6 in. exterior doors, single panel, and screen	
1 2 ft. 4 in. x 6 ft. 6 in. exterior door and screen door	
1 pair 2 ft. 6 in. x 6 ft. 6 in. single-panel doors and screen door	
1 2 ft. 10 in. x 6 ft. 6 in. exterior door and screen door	
2 2 ft. 4 in. x 6 ft. 6 in. interior door	
2 2 ft. 6 in. x 6 ft. 6 in. interior door	
4 cellar sash (about 16 in. x 33 in.) for bath and hall	
4 casement (or job-made) windows (about 37 in. x 50 in.)	
4 casement (or job-made) windows (about 37 in. x 38 in.)	
Electric wiring: 110-220 volt, 3-wire system	
Plumbing: piping, pump, tank, water heater, water closet, basin, tub, sink	
Septic tank	
Range	
Refrigerator	

PLAN 3

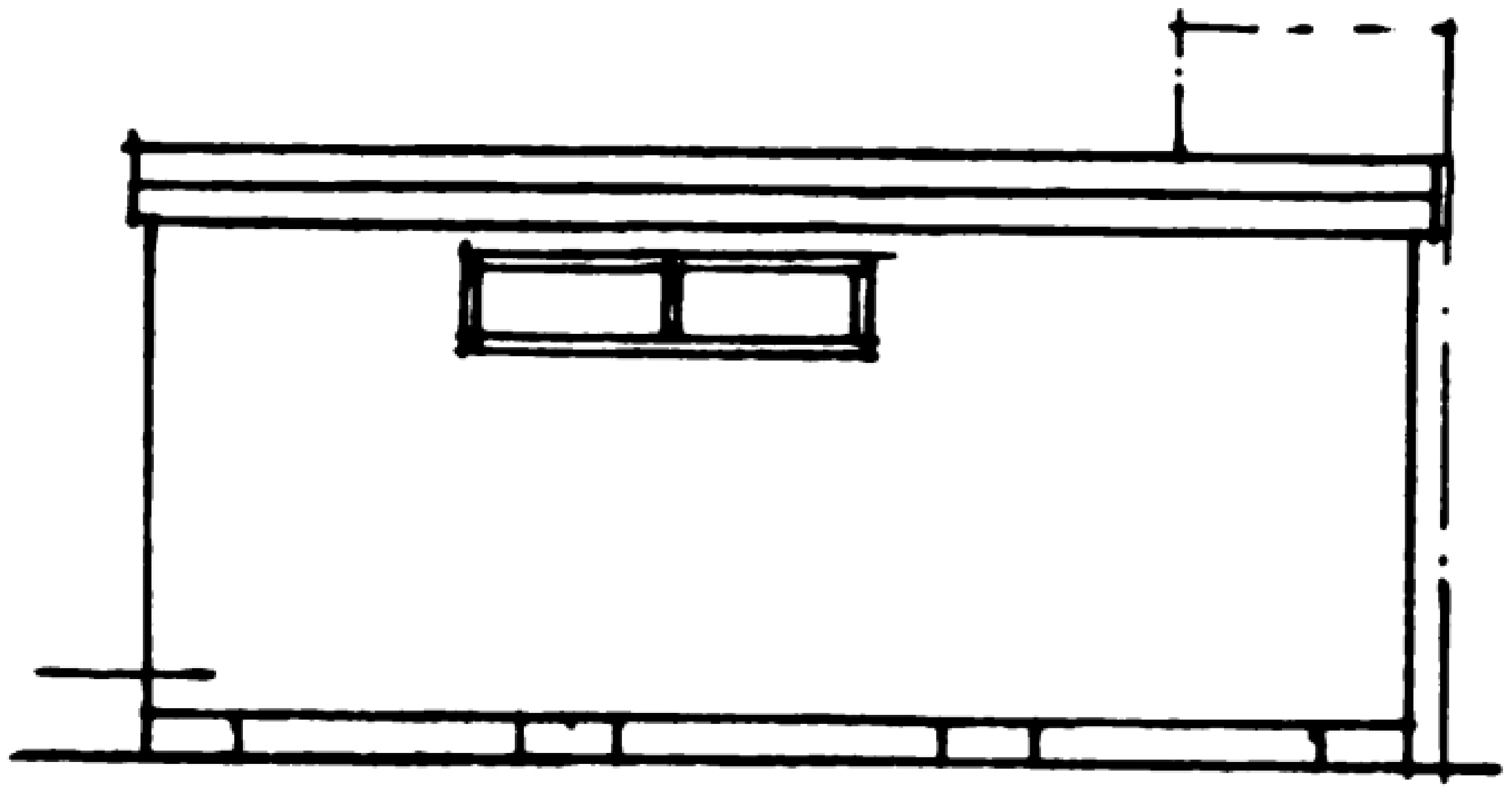
Here's the smallest cottage in the book. It is really minimal, but it can sleep four if a daybed is used in the dining corner. The details show how a folding table could be made to fit into the wall at this point. By using this arrangement, you will be able to pull the daybed out without trouble.

The fireplace is optional. It will cut down on your closet space. Perhaps you would prefer to use a Franklin stove standing out in the room.

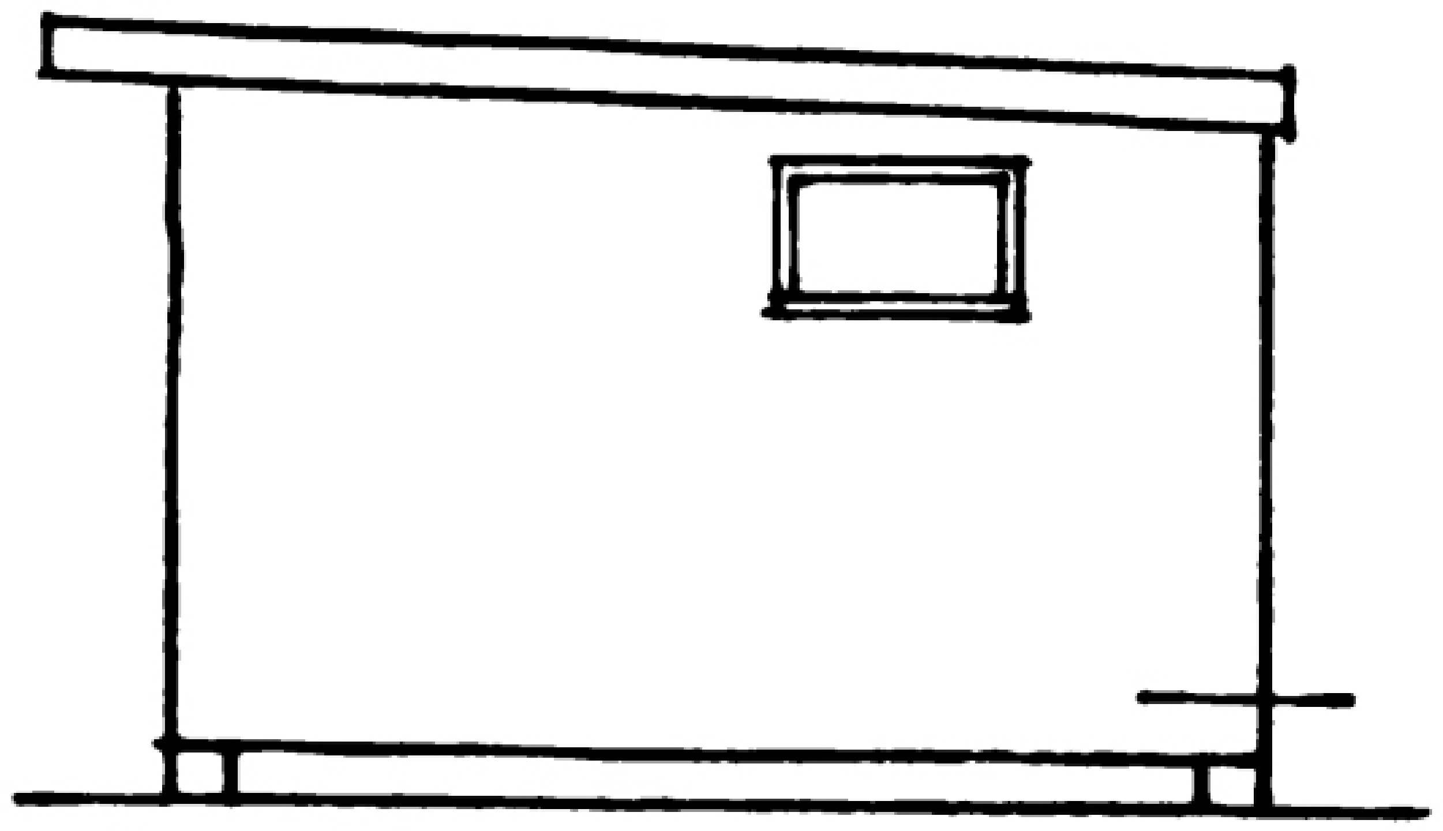
Note the use of a corner storage box between the corner couches and the storage space under the beds. This is easy to make and will give you a surprising amount of dead-storage area. You might line the corner unit with metal so that you can safely store things in it during the winter without fear of rodents destroying the contents.



Elevation C.

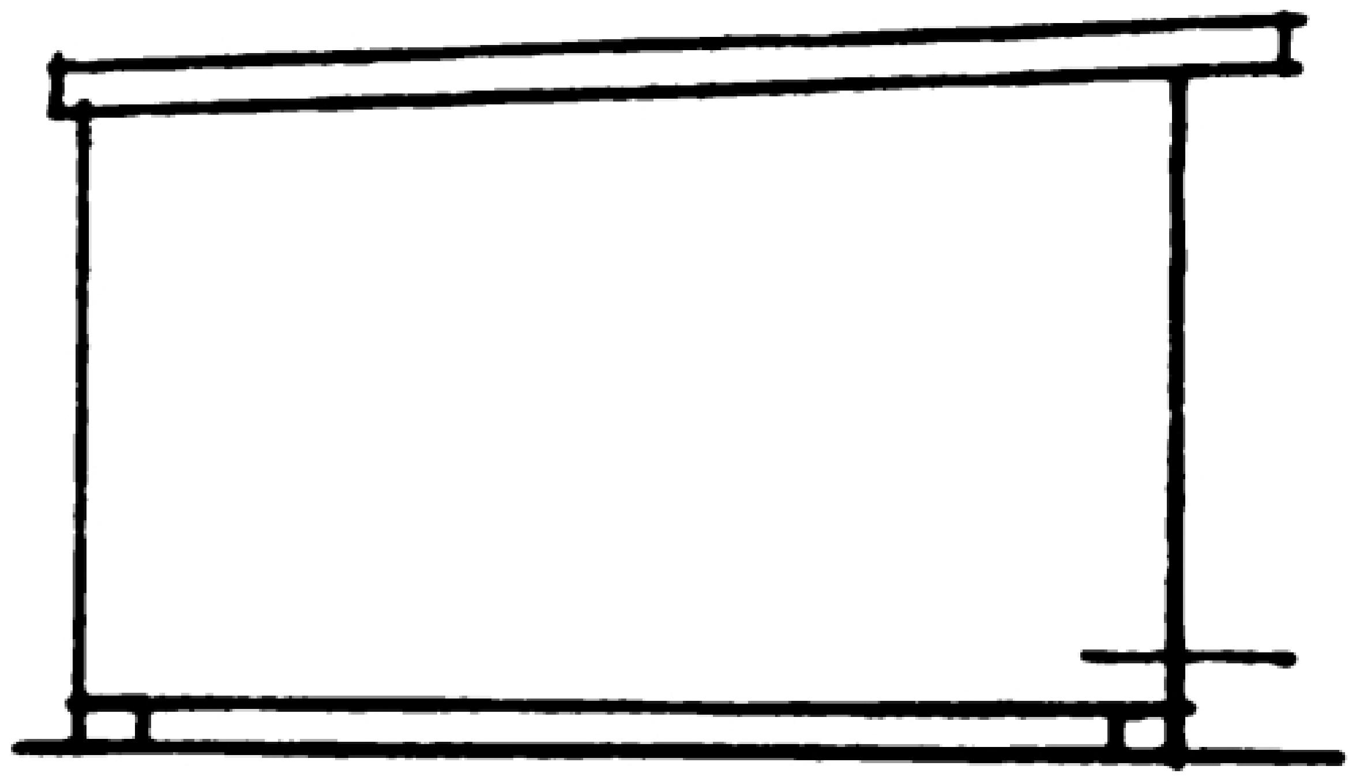


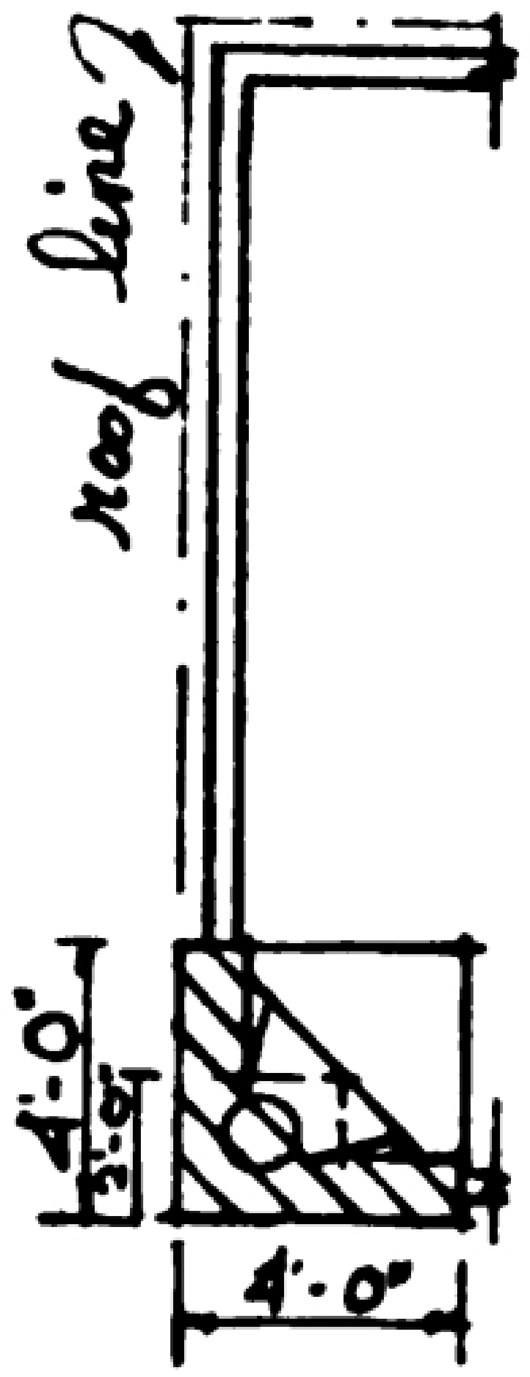
Elevation A.



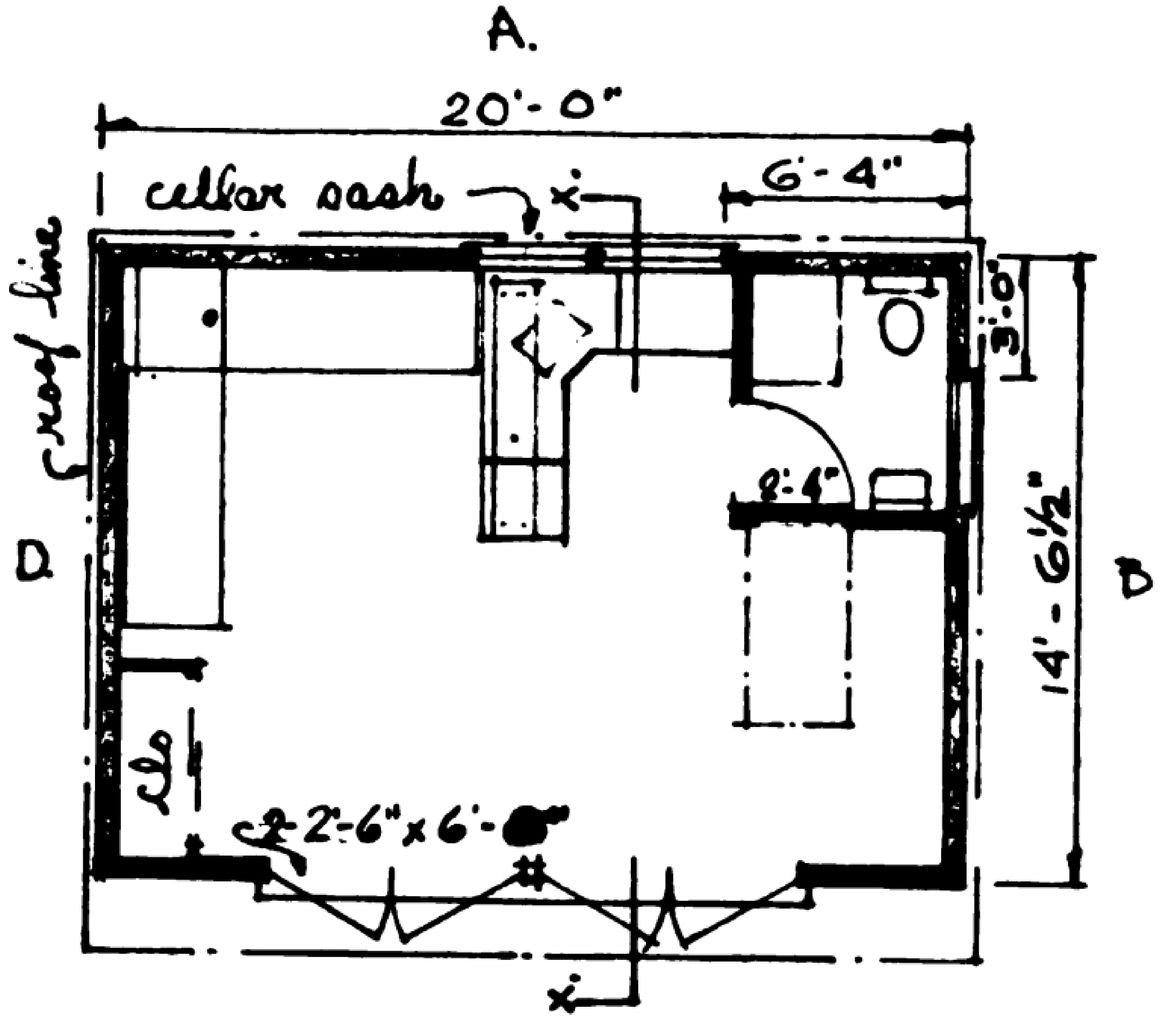
Elevation B.

Elevation D.

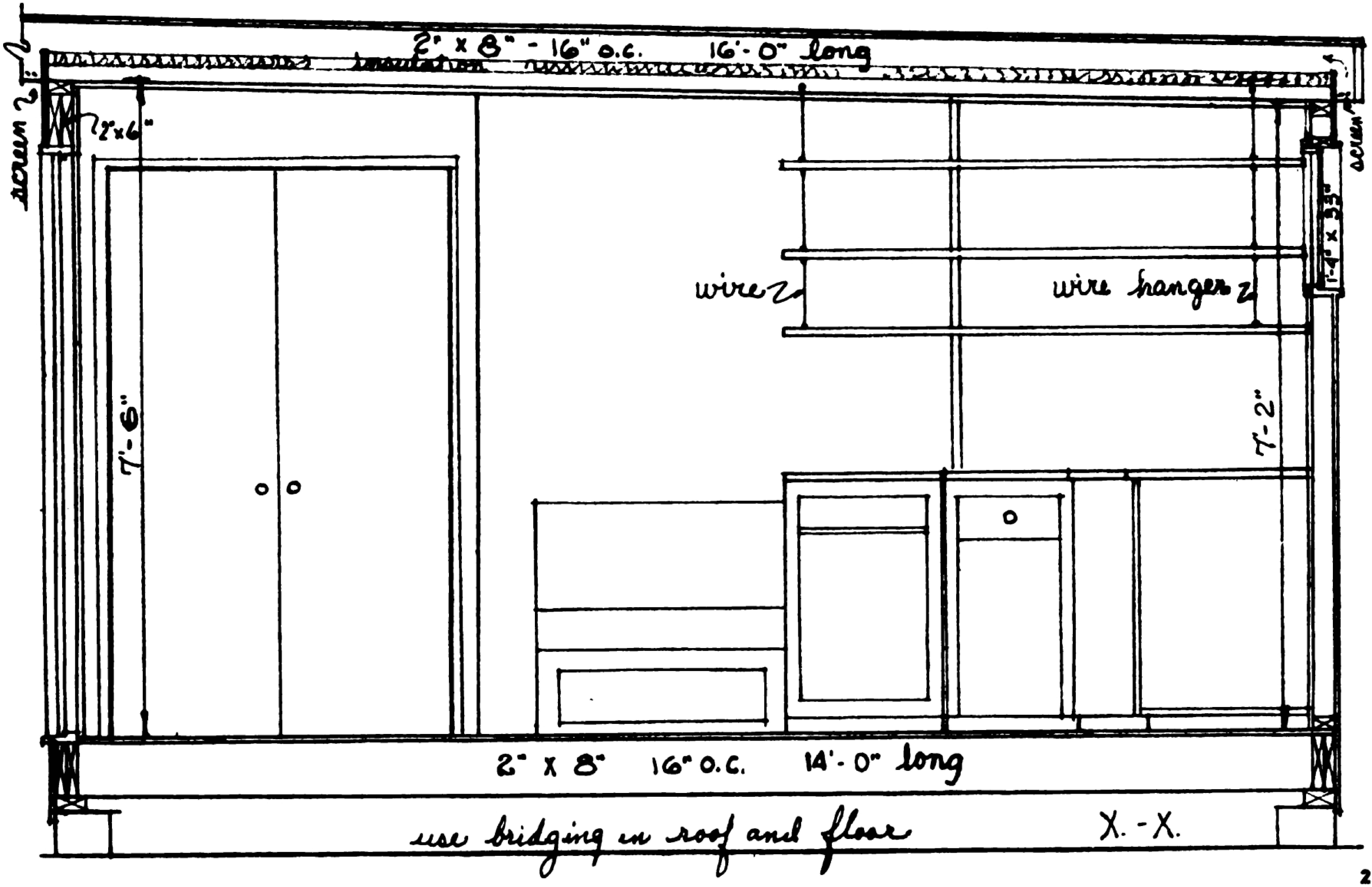


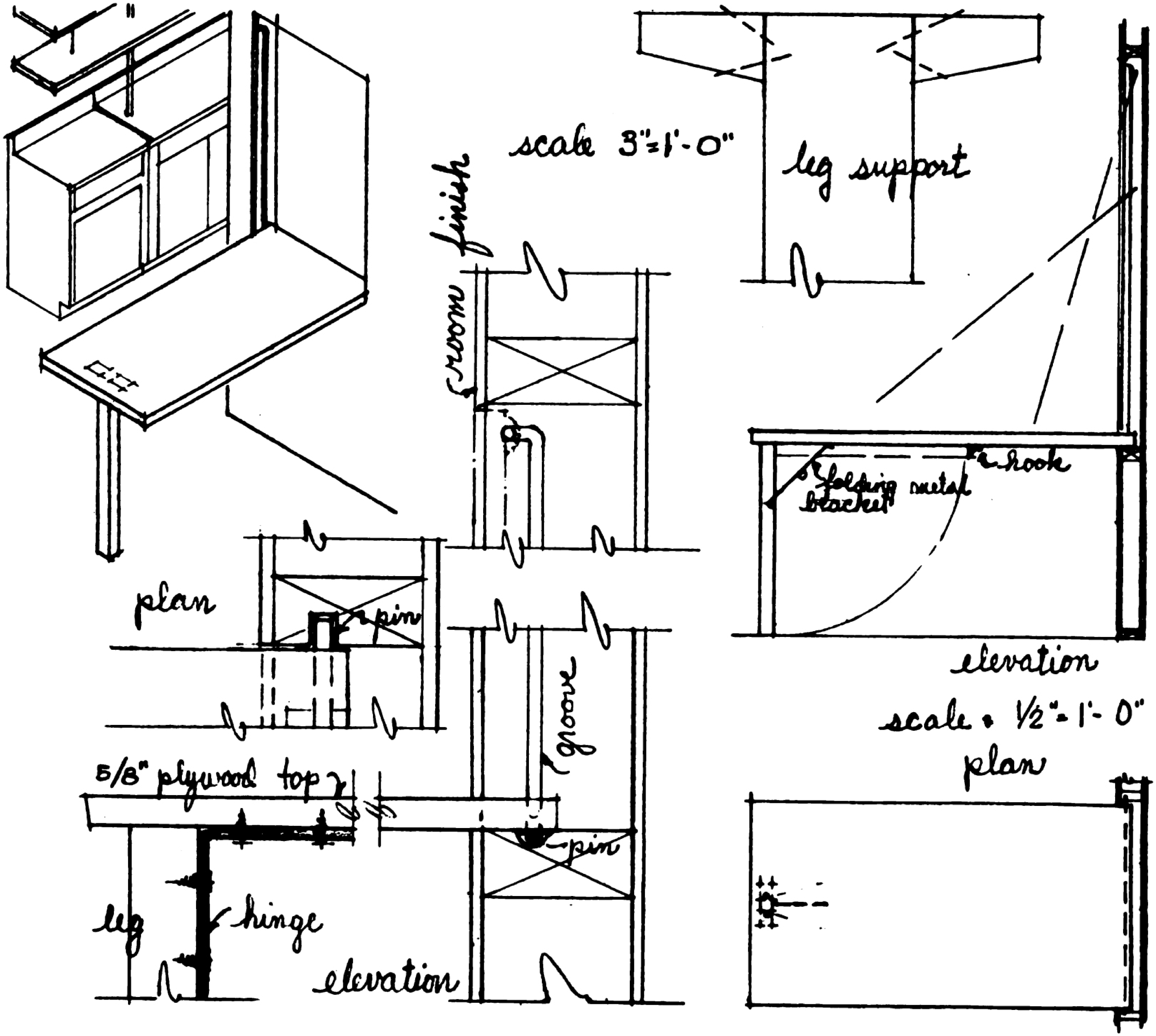


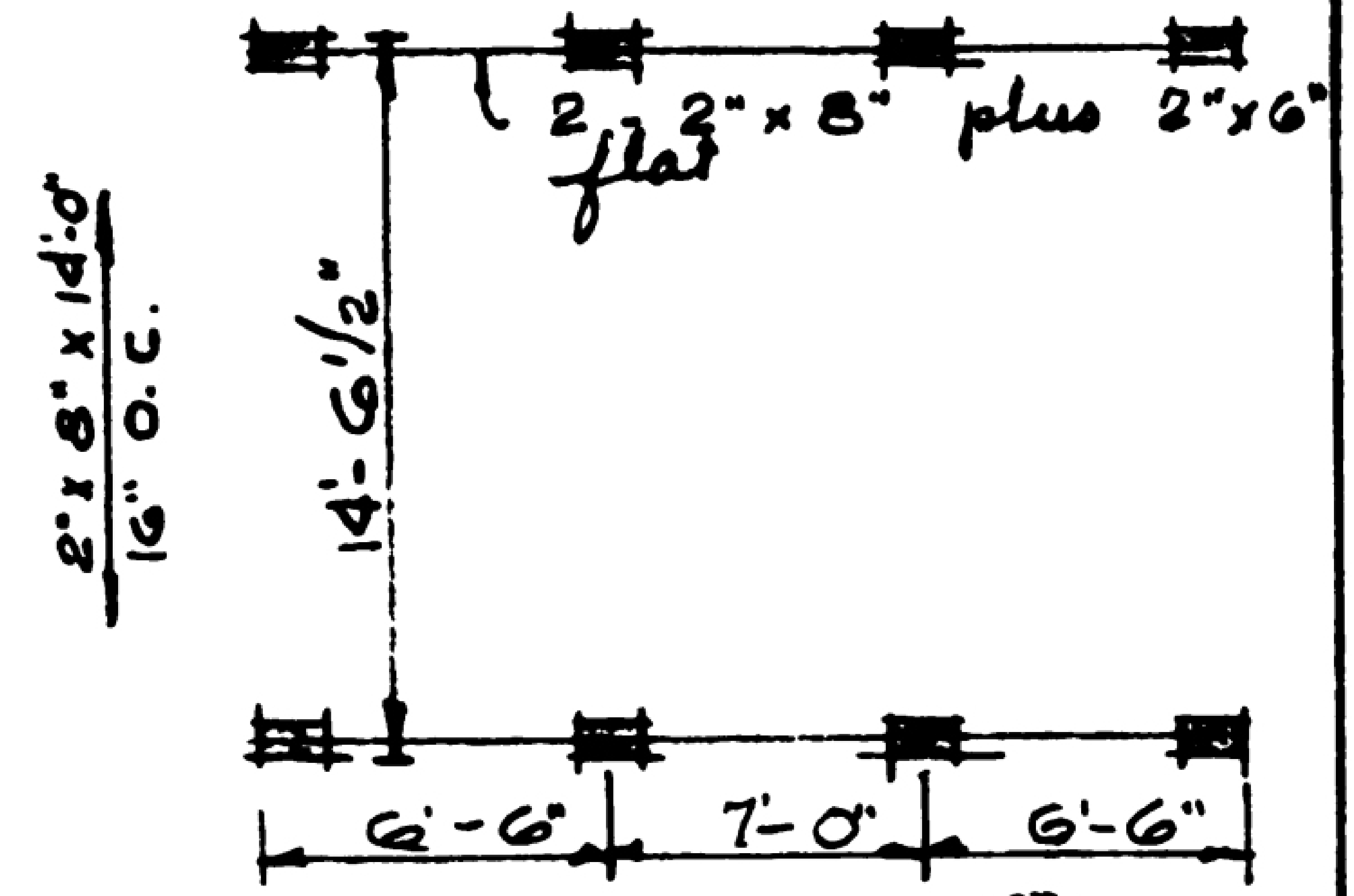
Alternate Fireplace



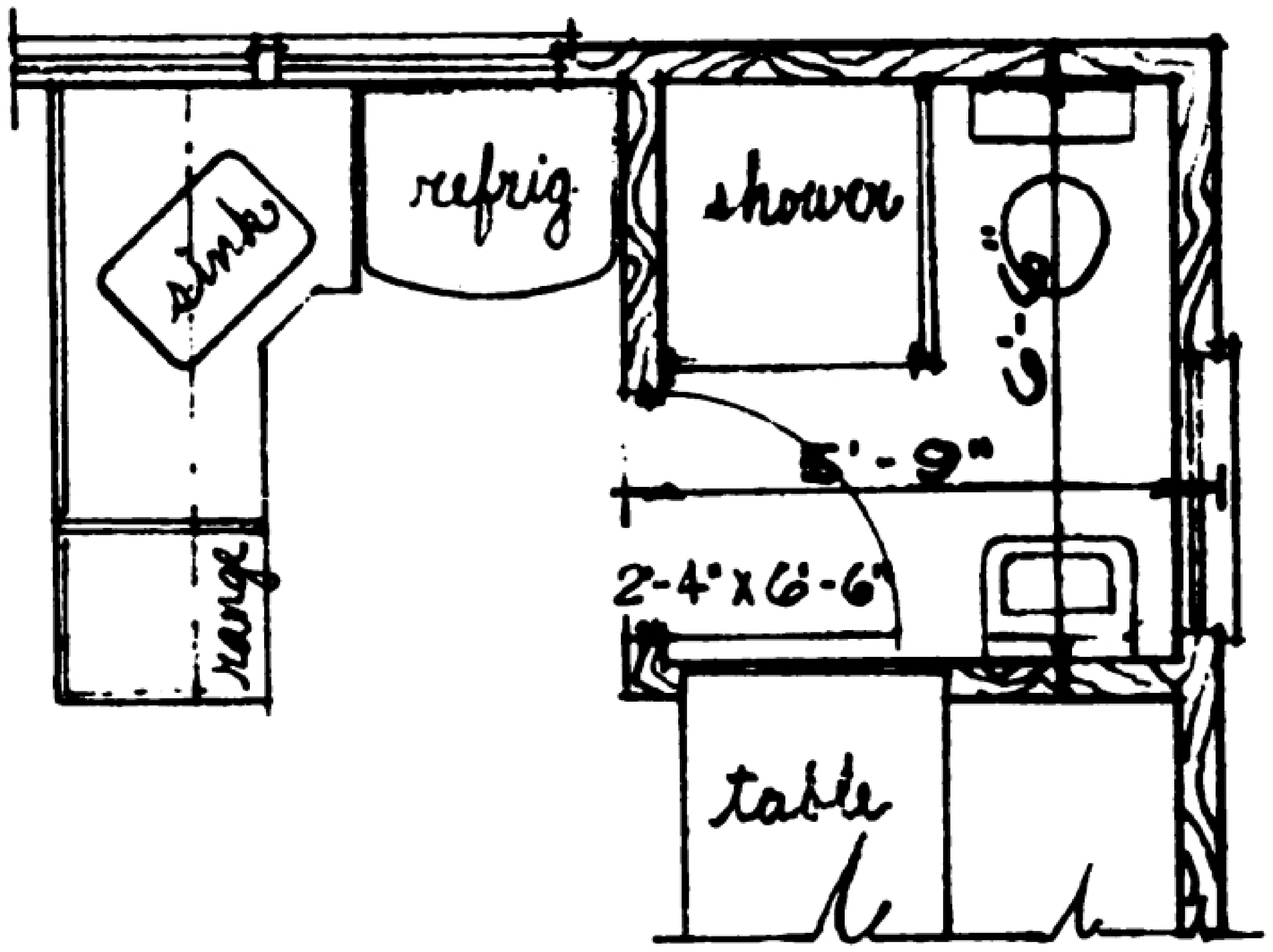
Plan


2" x 8" - 16" o.c. 16'-0" long
insulation
screen
2"x6"
7'-6"
wire
wire hangers
1'-4" x 33"
screen
7'-2"
2" x 8" 16" o.c. 14'-0" long
use bridging in roof and floor
X.-X.

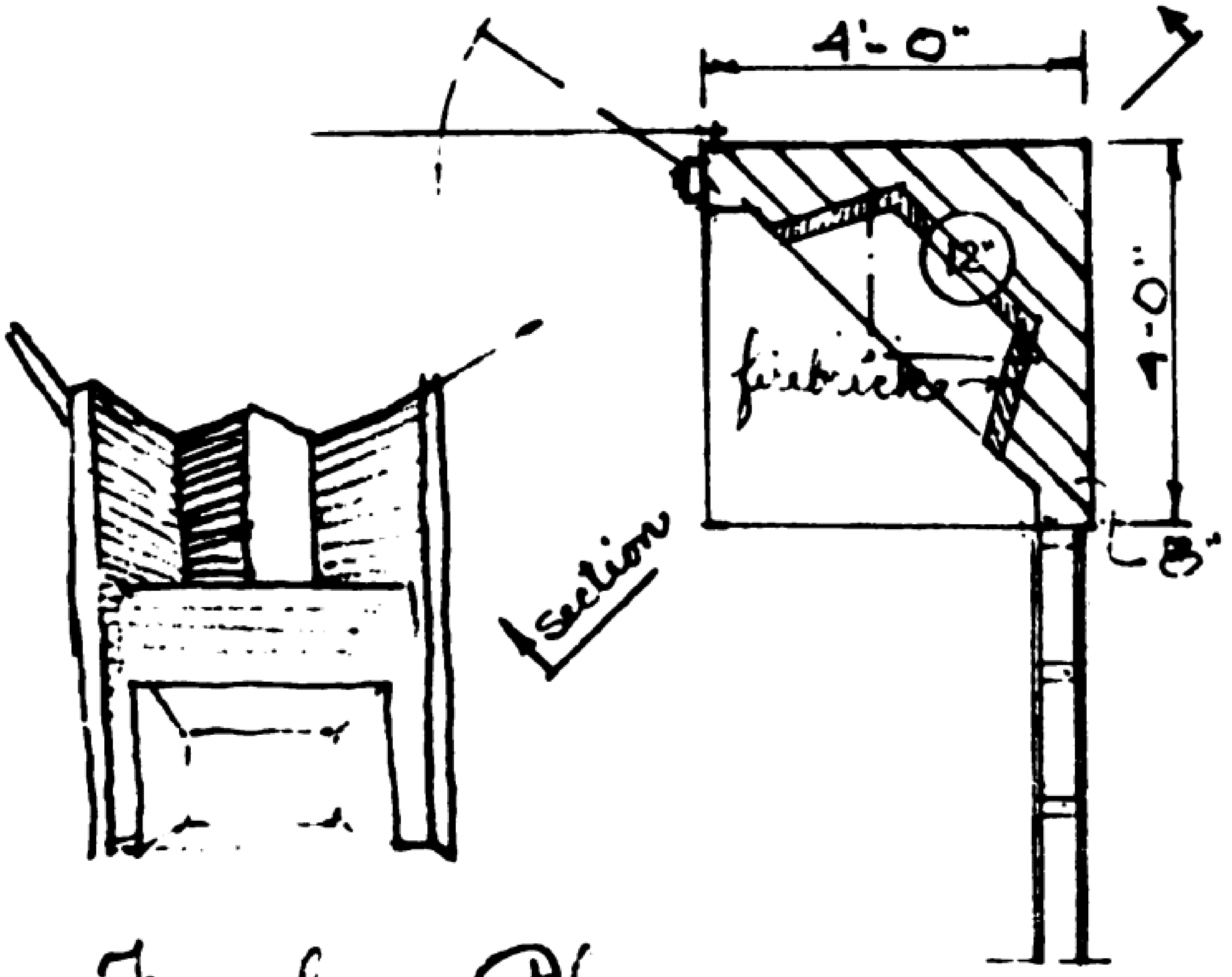

scale 3"=1'-0"
leg support
room finish
plan
pin
5/8" plywood top
groove
pin
leg
hinge
elevation
hook
folding metal bracket
elevation
scale: 1/2"=1'-0"
plan



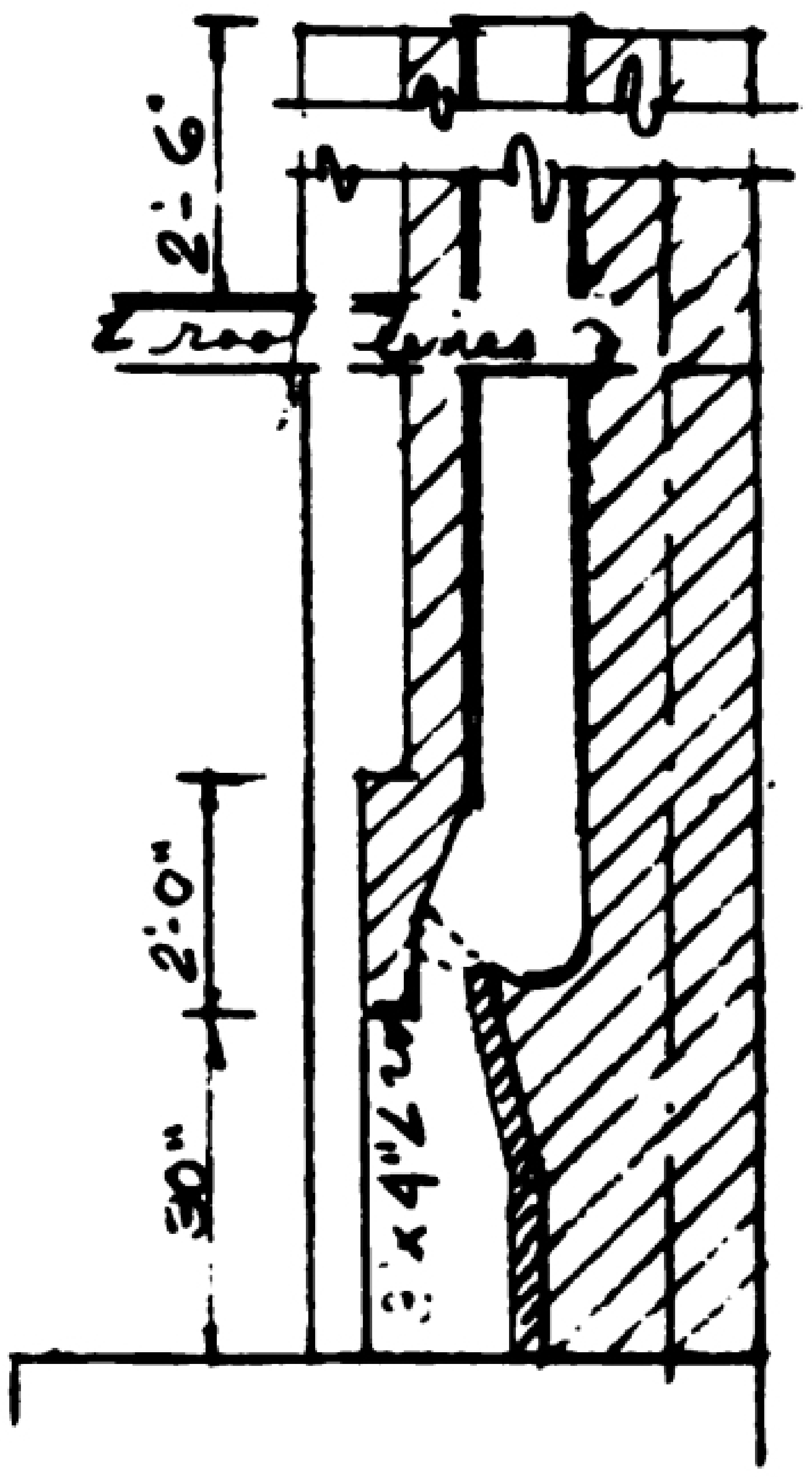
Piers



Kitchen & Bath



Fireplace Plan



Fireplace Section

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Tighten bolts. Spike inner width of header to sill. Lay out floor joists and spike them to inner width. Nail down flooring. Install door and window sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out wall sections A and C on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame walls B and D.

Roof: Place roof joists in place and lay roofing boards. Coat roofing boards with asphalt cement. Place a layer of 15-pound roofing felt over. Use cold type of roof mastic and brush over felt. Start laying selvage edge of roofing material at end A. Follow directions on the roll.

Side-wall Finish: Use 1-by-6- or 1-by-8-inch tongue-and-groove siding nailed at top, bottom, and at herringbone bridging.

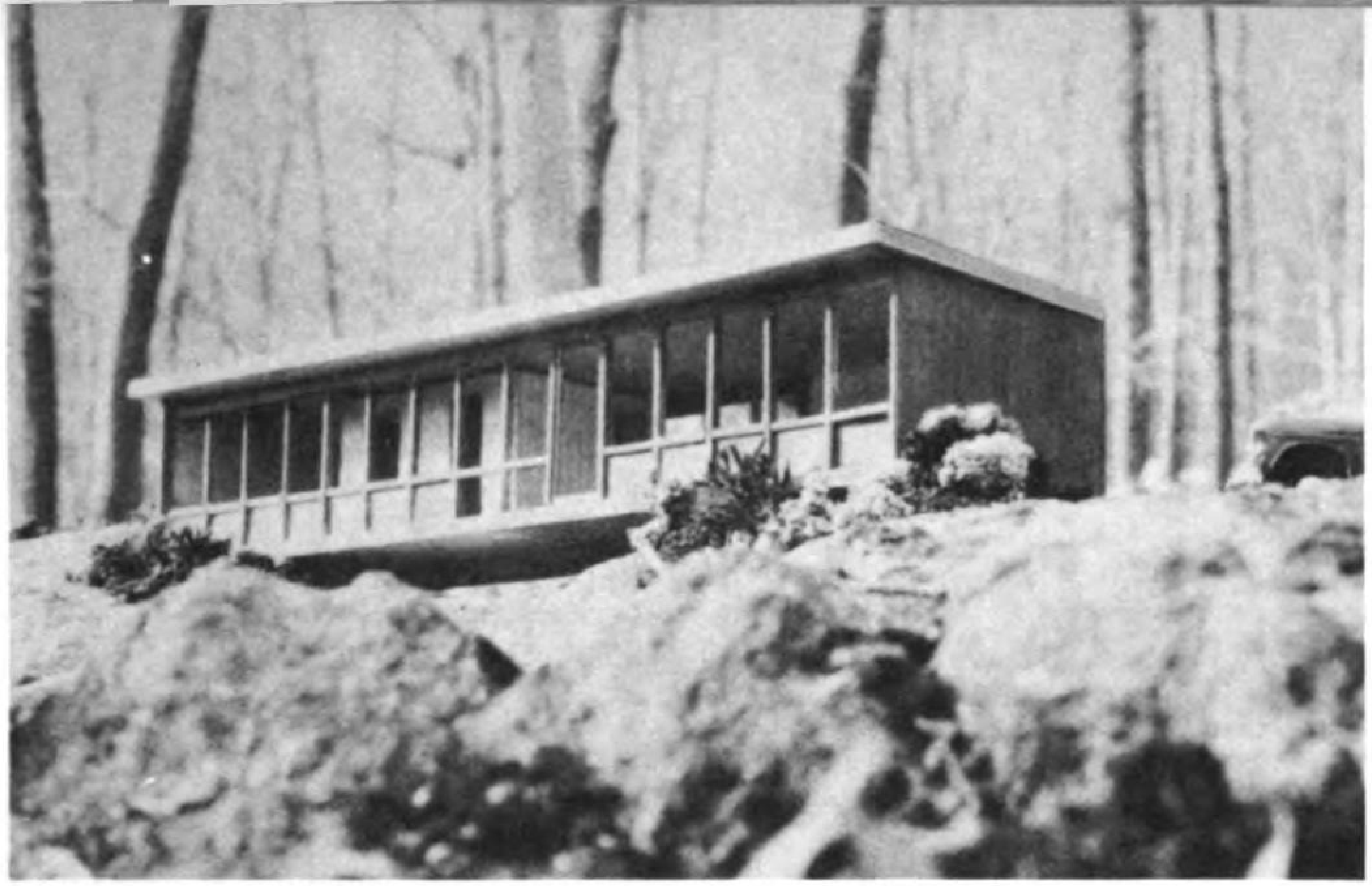
Vents, Doors, and Other Openings: Follow details on preceding pages or in last section of the book.

Insulation: Medium- or full-thickness Fiberglas or equivalent stapled between roof joists. Use medium thickness in side walls.

Finish interior to suit. Install mechanical and electrical equipment as desired.

MATERIALS LIST

Concrete for footings	½ cu. yd.
Block for piers	depends upon depth
8 anchor bolts	½ in. x 8 in.
6 2 x 6 10 ft. long	sill and door sill
2 2 x 6 12 ft. long	header over double doors
10 2 x 4 14 ft. long	cut in half for rear wall
22 2 x 4 16 ft. long	cut for other wall framing and partitions
6 2 x 4 10 ft. long	plates and headers (window)
18 2 x 8 14 ft. long	floor joists
16 2 x 8 16 ft. long	rafters
8 2 x 8 10 ft. long	header (girder)
1 4 x 4 8 ft. long	door post
80 lineal ft. of 1 x 8 fascia board	
60 ft. 1 x 2 14 ft. long doorstops	
400 board ft. of flooring	
450 board ft. of roofing boards	
600 board ft. of tongue-and-groove siding (vertical)	
800 board ft. of tongue-and-groove boards (interior finish) or 800 sq. ft. of ⅜ in. plywood	
280 sq. ft., plus waste, material for ceiling	
2 pairs of 2 ft. 6 in. x 6 ft. 8 in. single-panel doors	
1 2 ft. 4 in. x 6 ft. 6 in. interior (bath) door	
1 pair of wood or steel sliding doors, opening 5 ft. x 6 ft. 6 in.	
1,100 sq. ft. of roofing material (3-ply built-up) and mastic	
800 sq. ft. medium-thick insulation	
3 cellar sash (about 16 in. x 33 in.)	
60 sq. ft. of ¾ in. plywood for counter	
3 ft. x 5 ft. piece of ⅝ in. waterproof plywood for table	
Electric wiring: 110-220 volt, 3-wire system	
Plumbing: piping, pump, tank, water heater, water closet, basin, shower, and single sink	
Septic tank	
Stove or range	
Refrigerator	

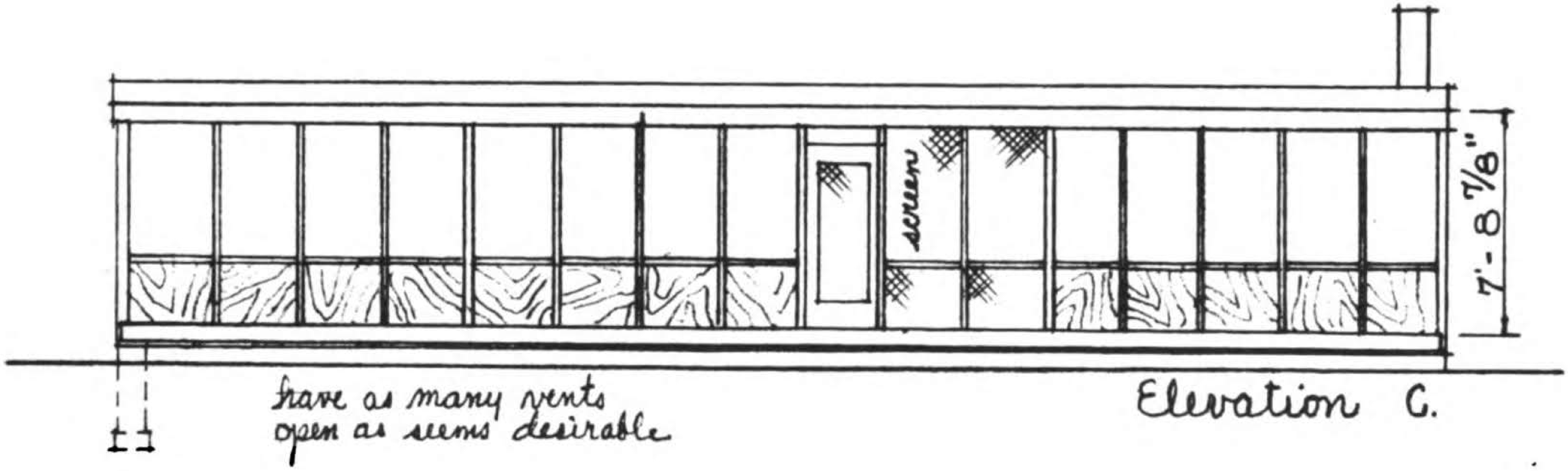


PLAN 4

This simple box could be built on a very level piece of property or could be made to span two islands. The porch that separates the living area from the sleeping area could be very comfortable. Breezes could blow through unhindered. It would be a good place to eat and relax in. If sunlight is a problem, a heavier overhang on the glass side might be desirable. If the weather permits using the porch, this cottage can sleep six or eight people.

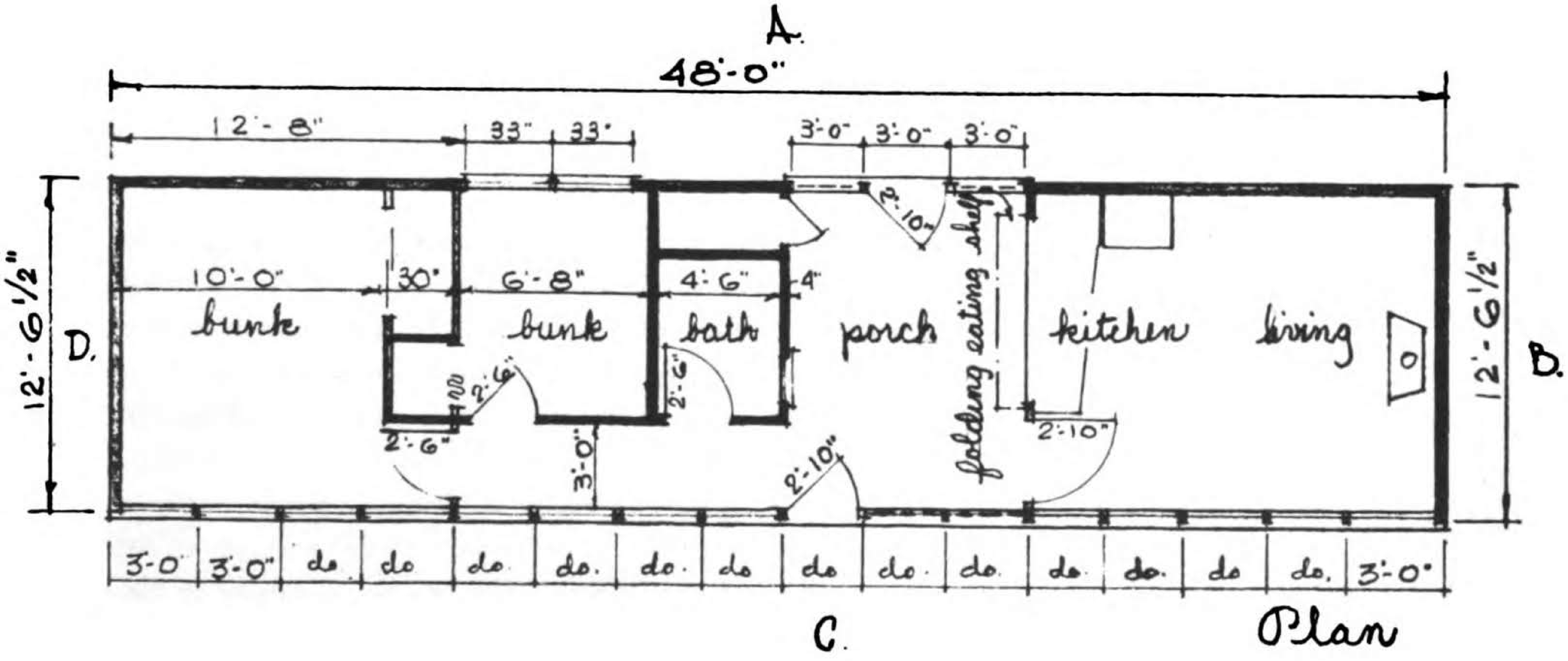
If you decide to span two islands or straddle a stream as shown in the photograph, I'd suggest that you check with a local architect or engineer about the sizes of supporting beams which will run lengthwise of the camp.

I've shown a Franklin stove at the end of the living area. You might prefer to use a solid masonry wall at that end and include a regular fireplace. It can be done.

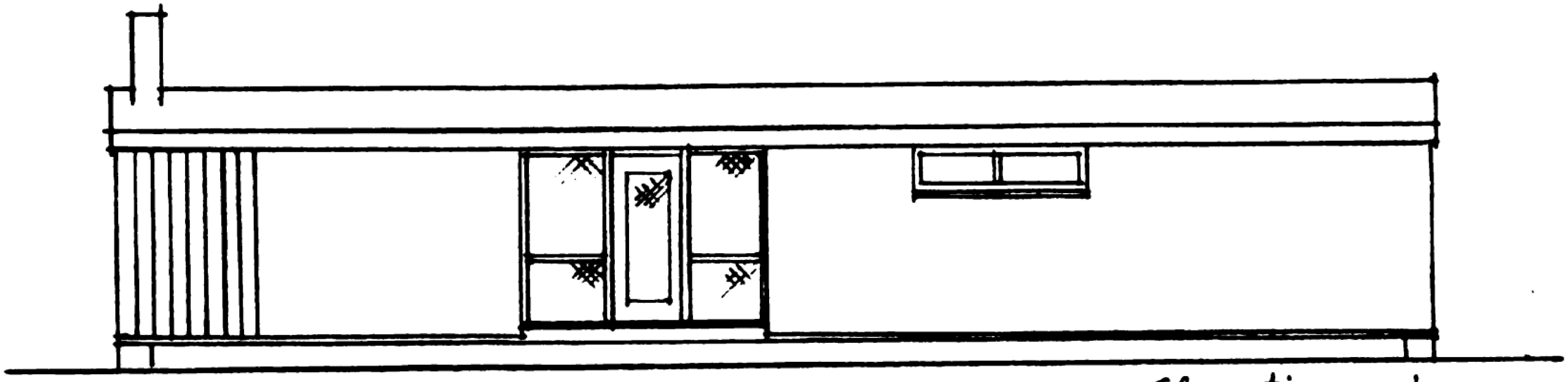


have as many vents
open as seems desirable

Elevation C.

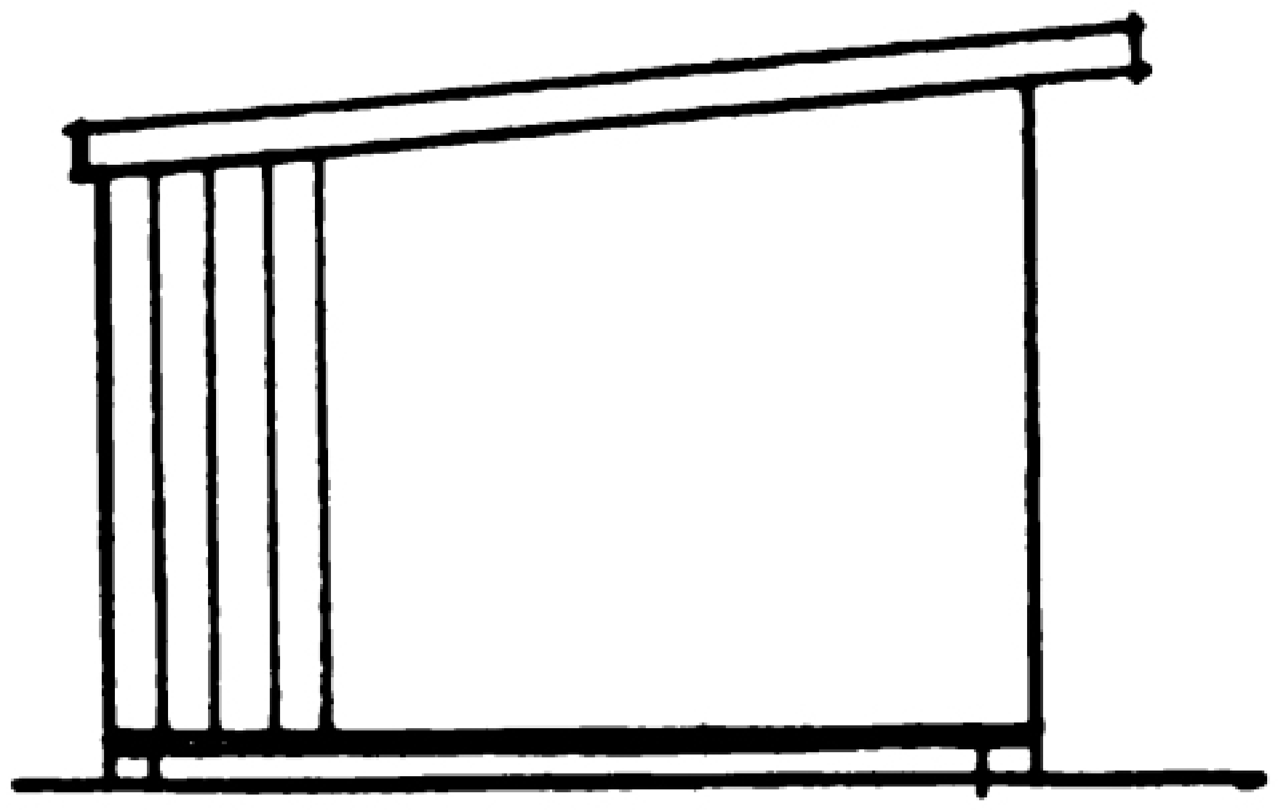


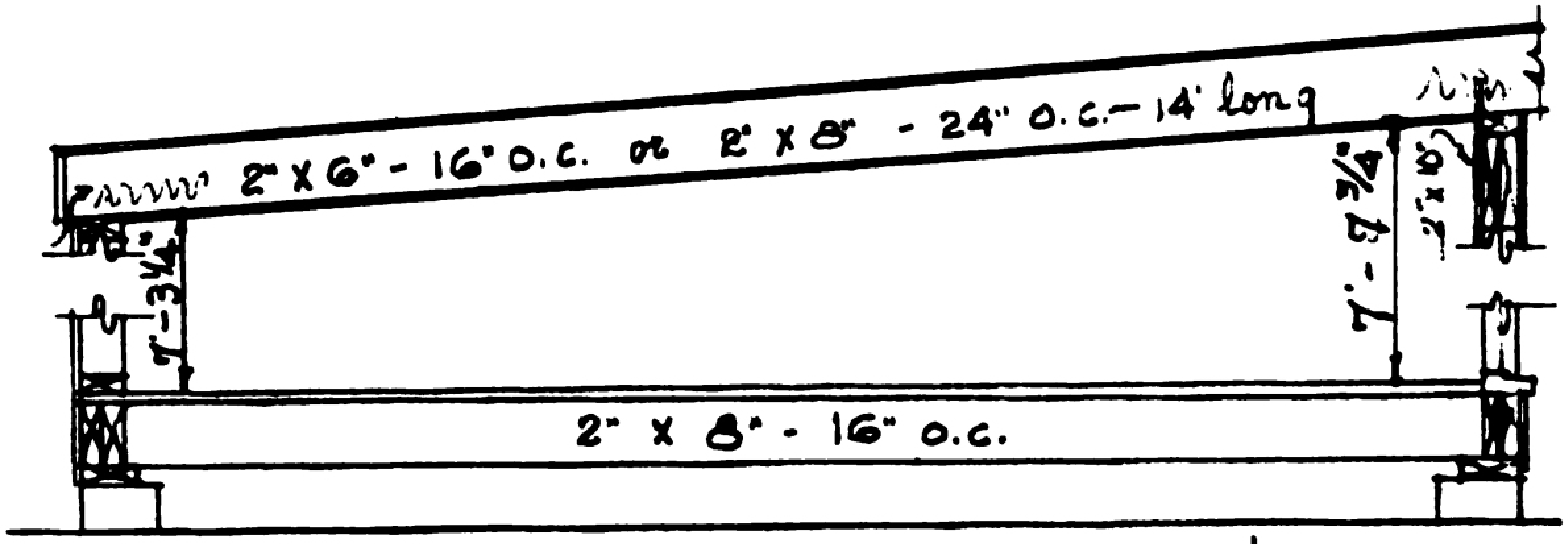
Plan



Elevation A.

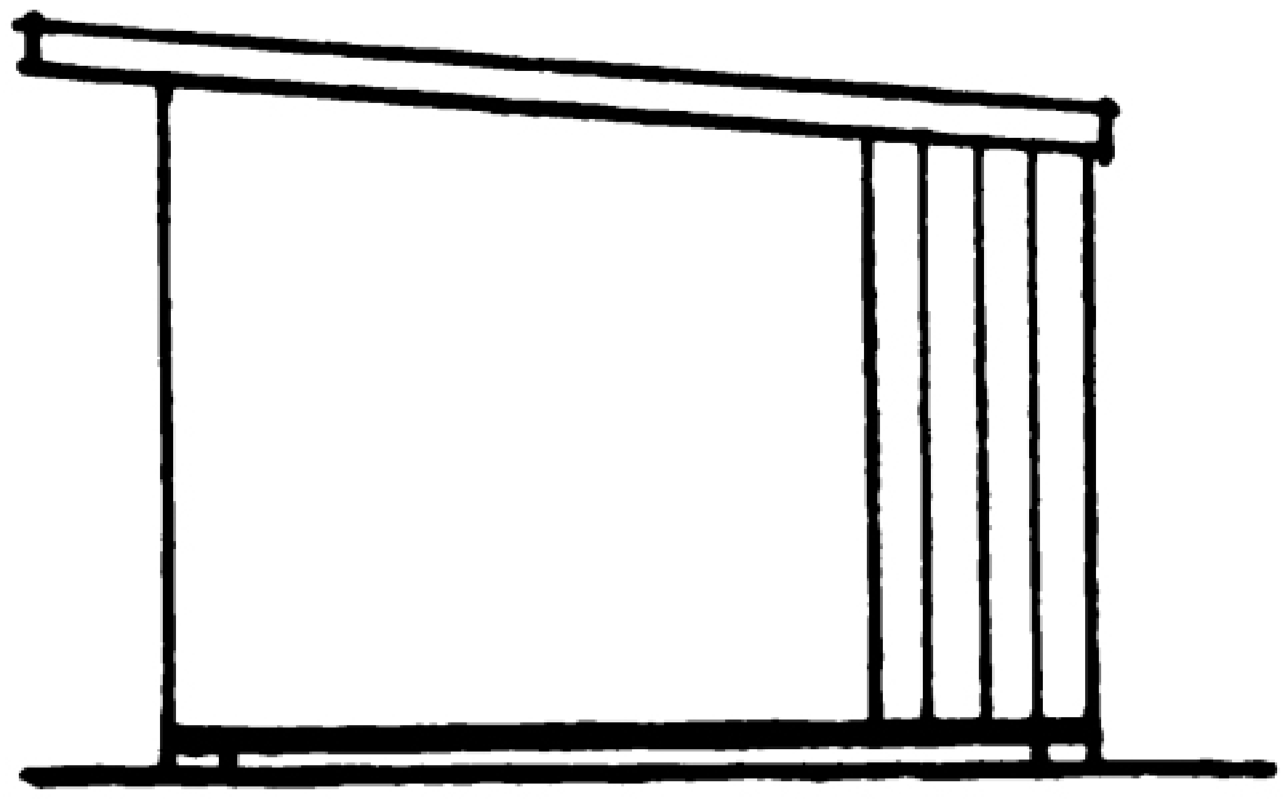
Elevation D.



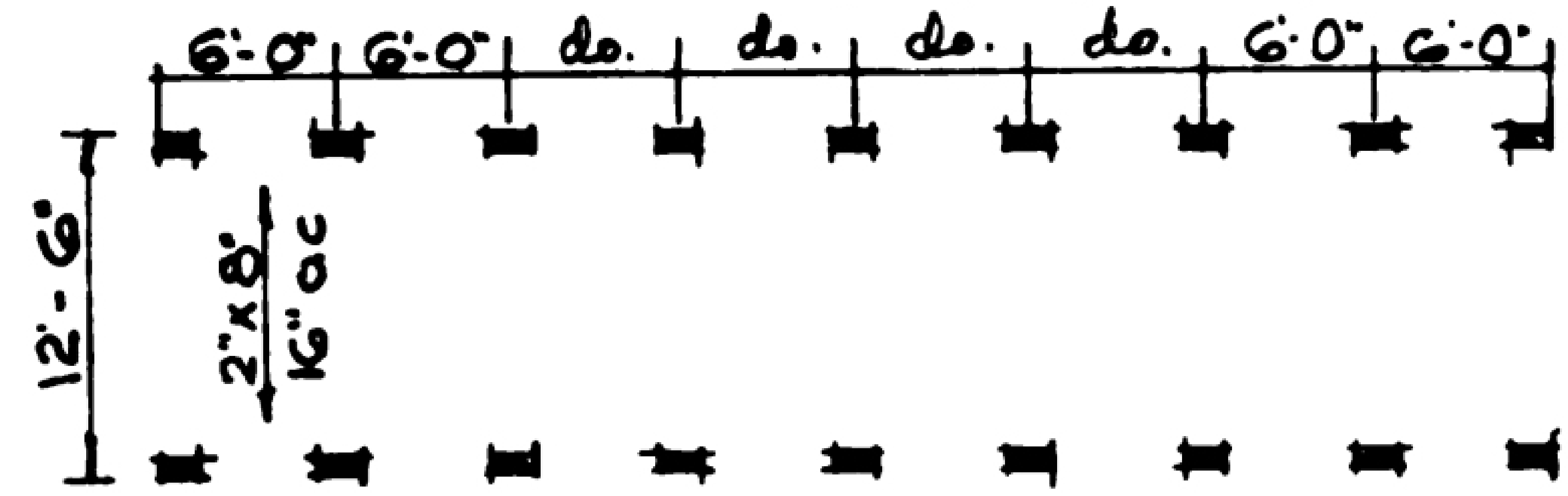


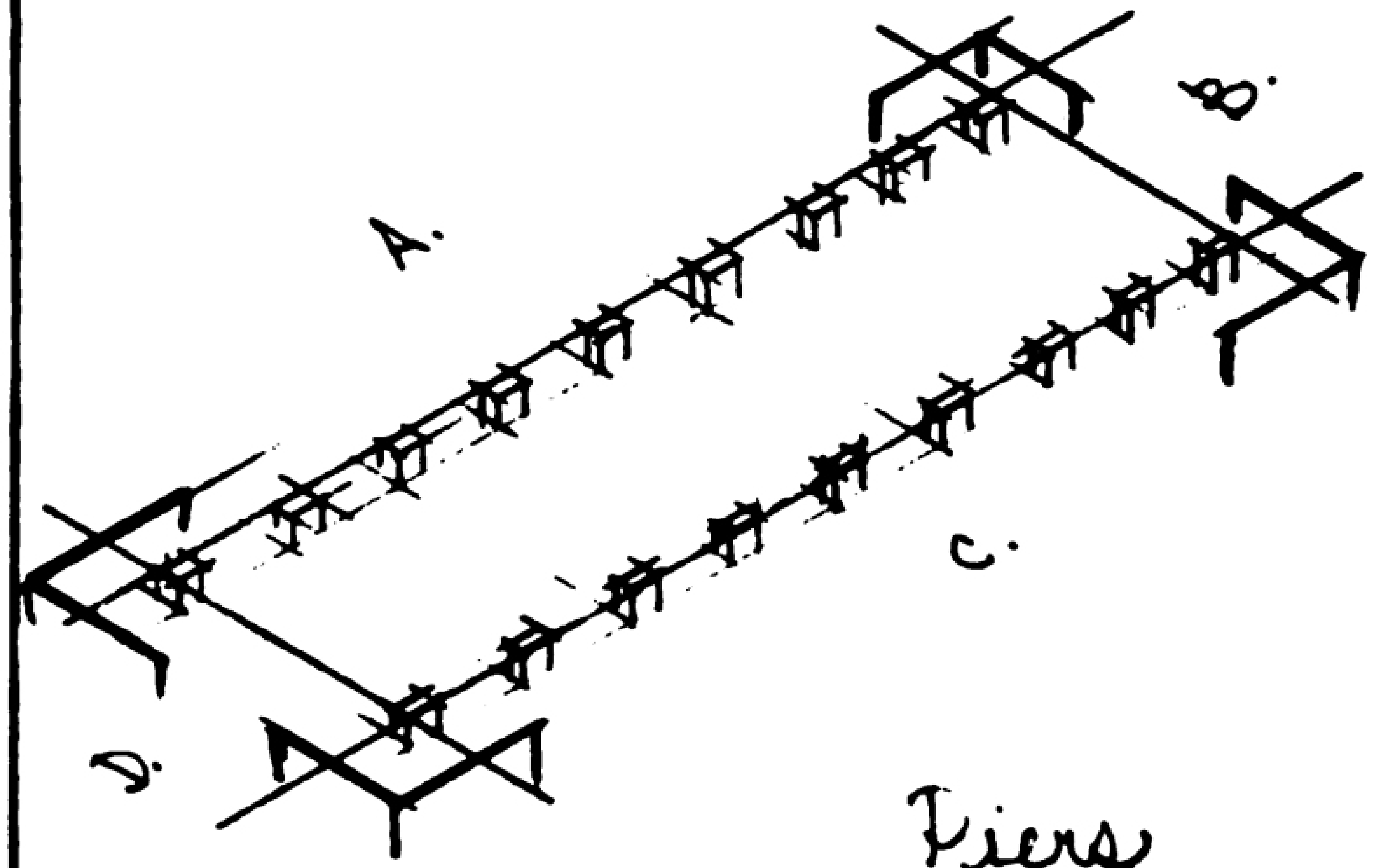
Section

Elevation B.

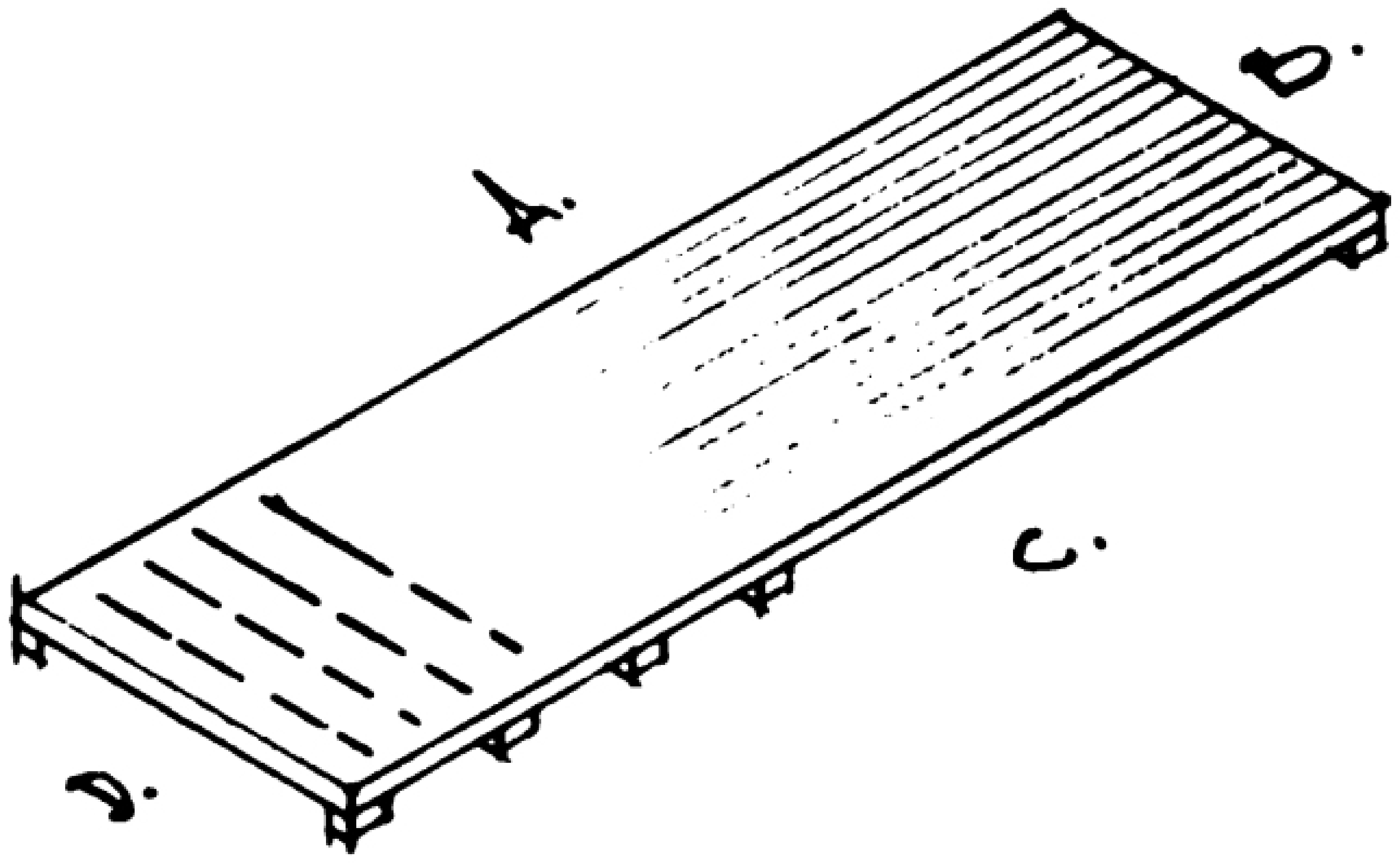


Pier Foundation

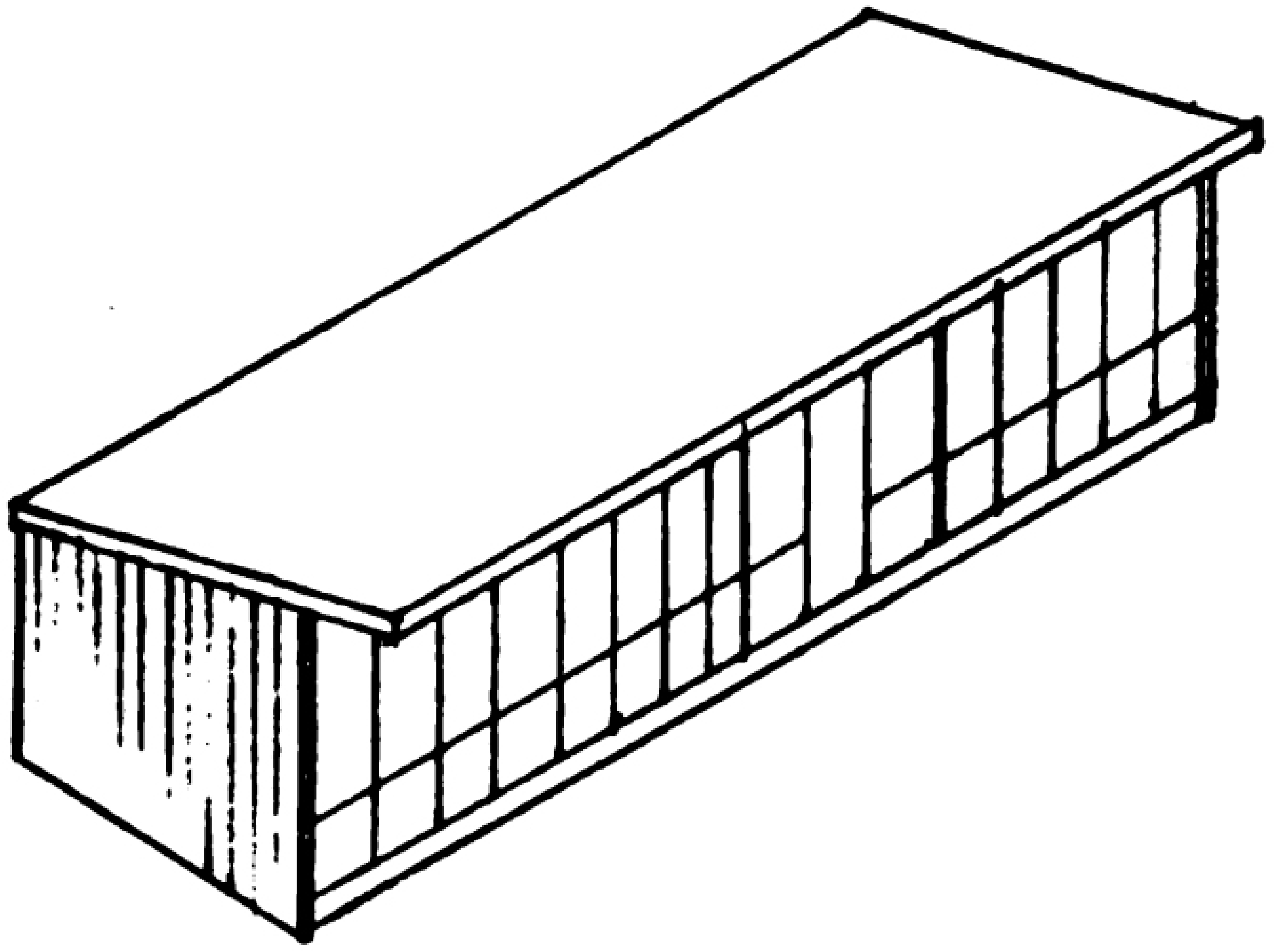




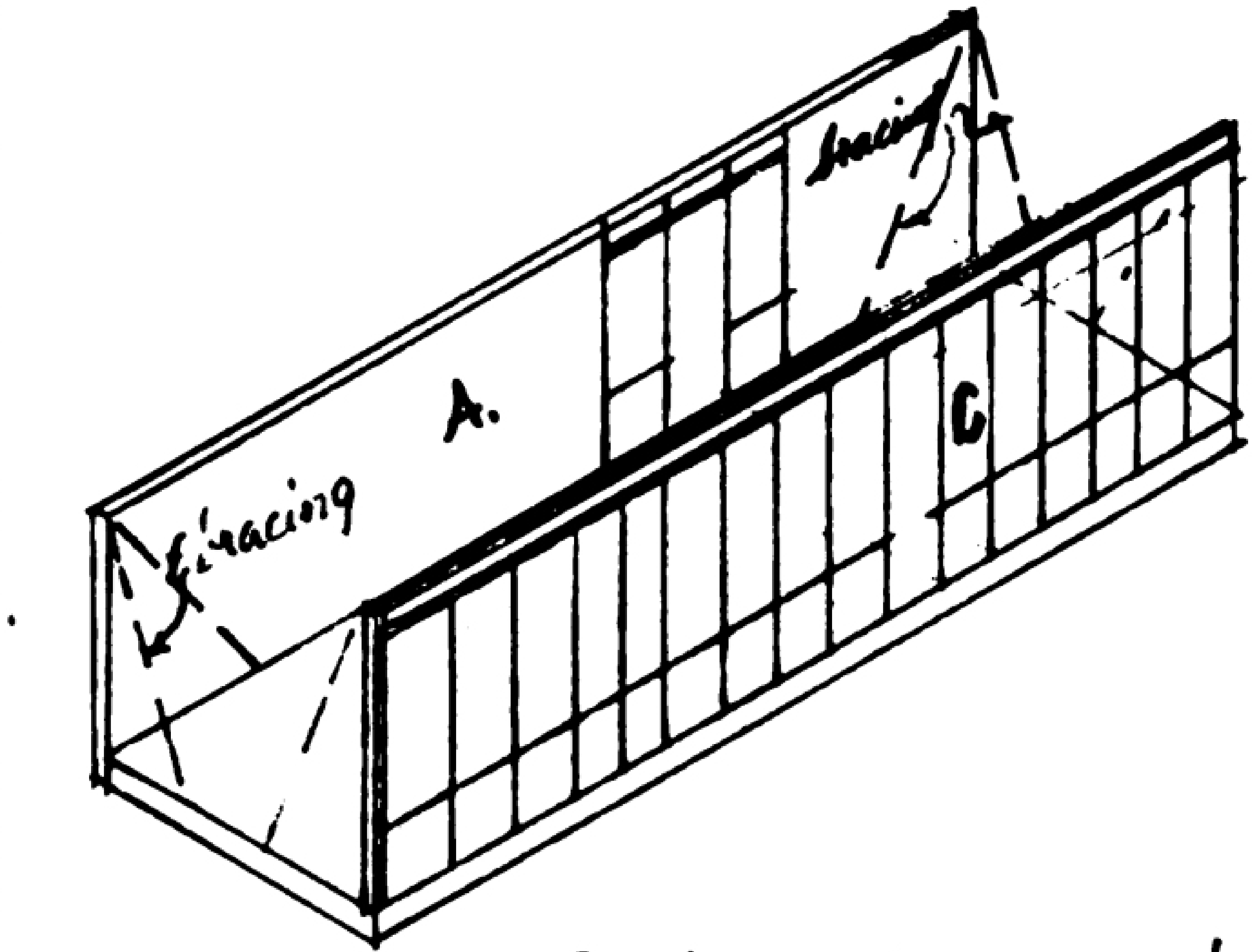
Piers



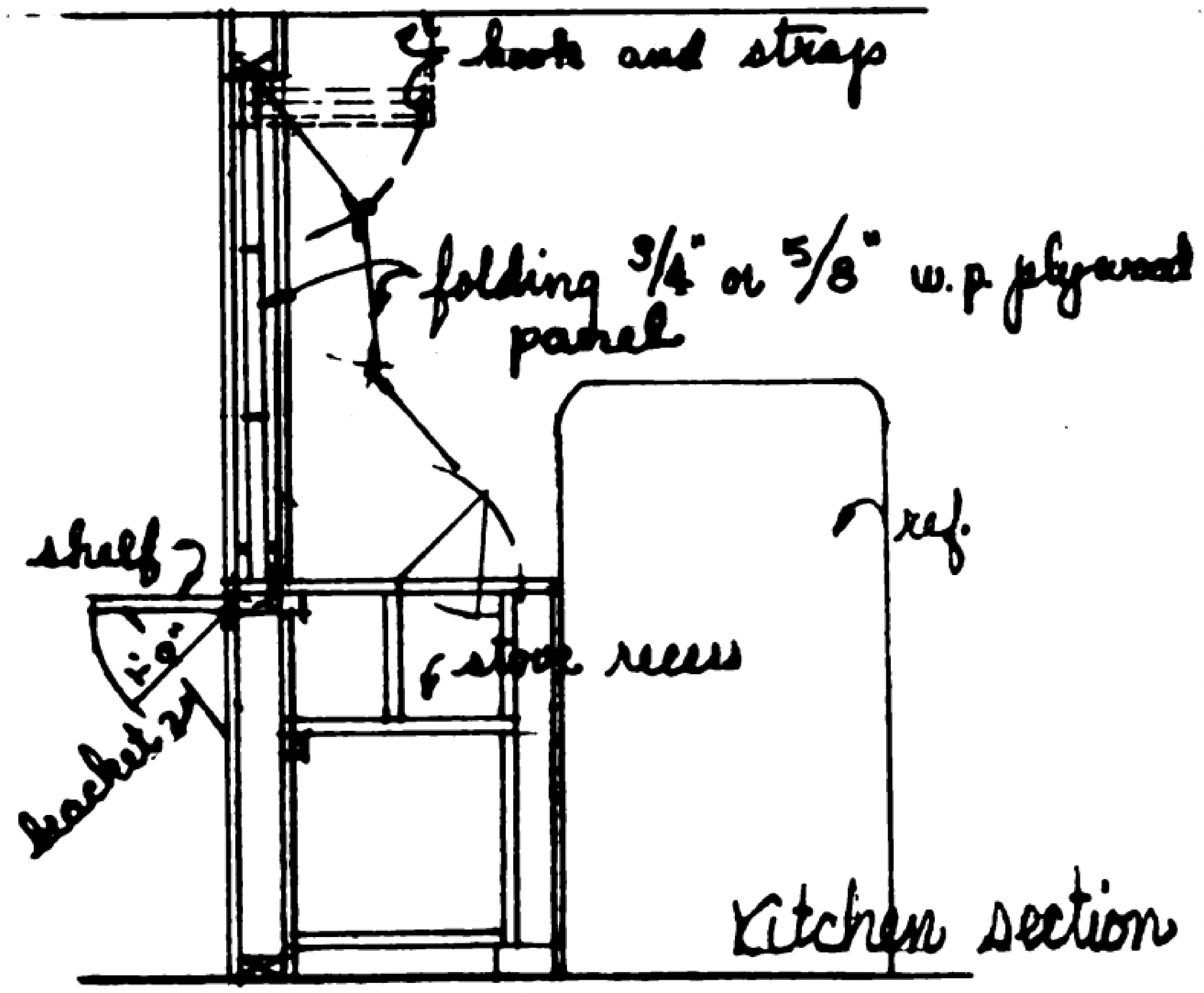
Platform



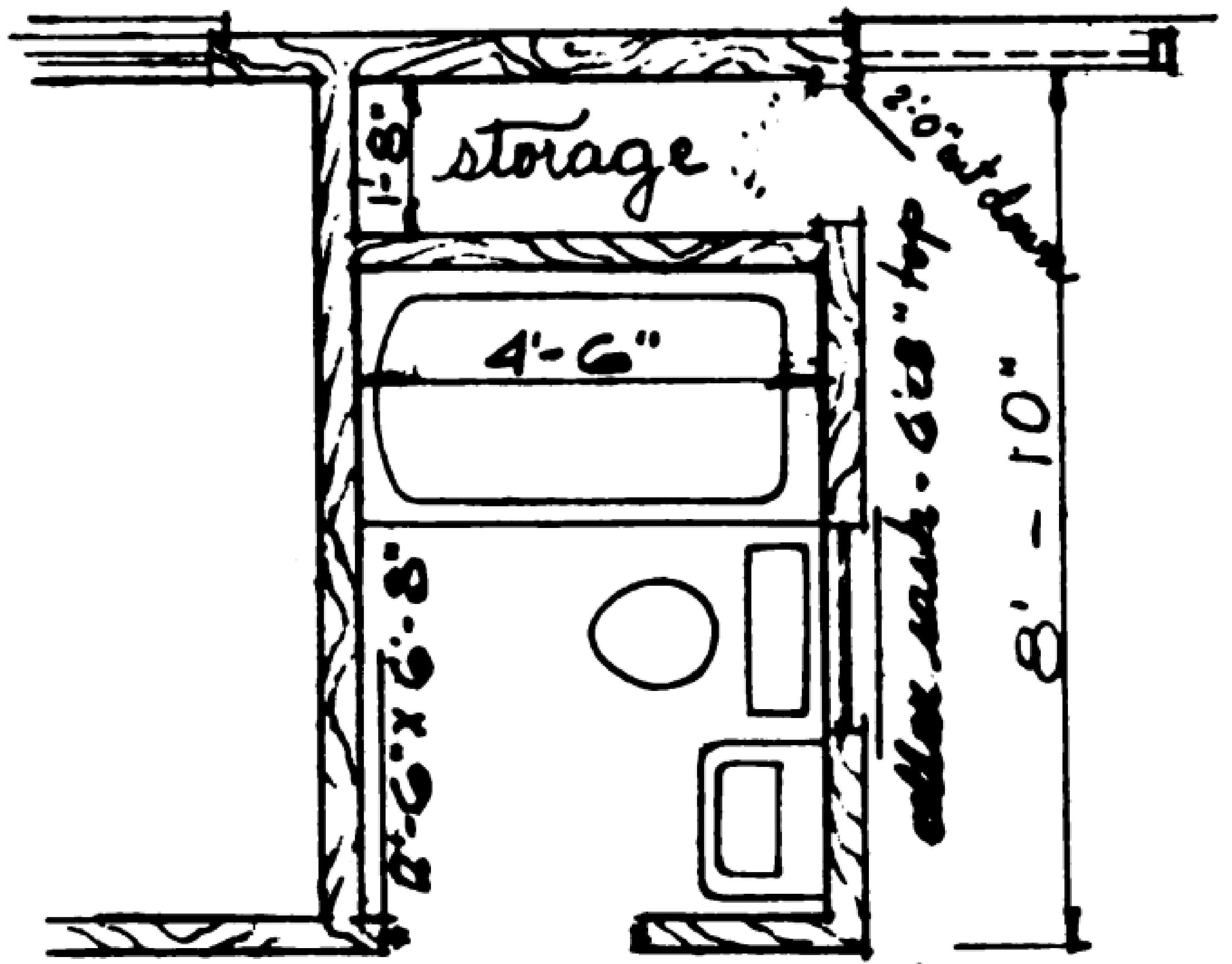
Flat roof



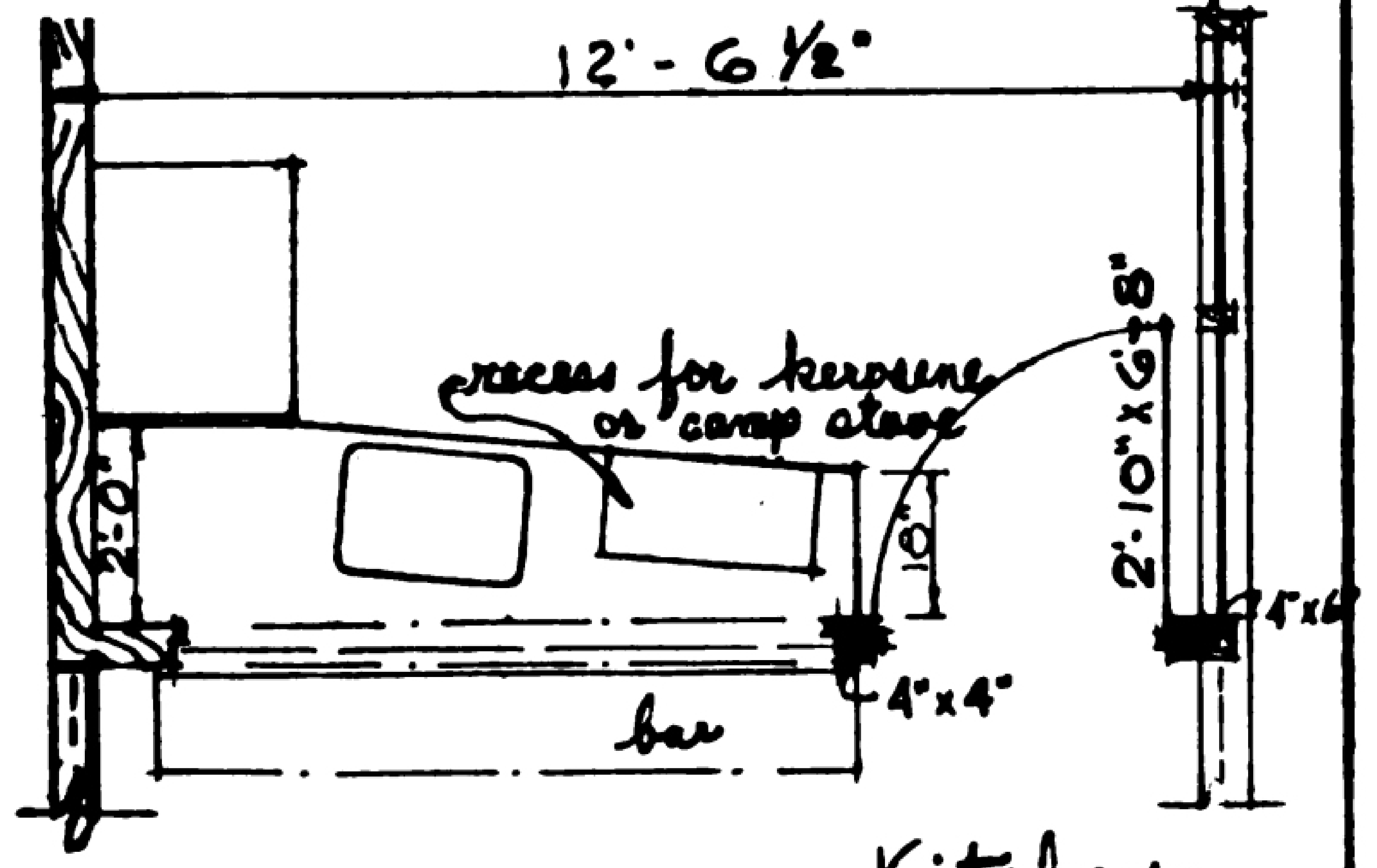
Erect walls "A" & "C" first



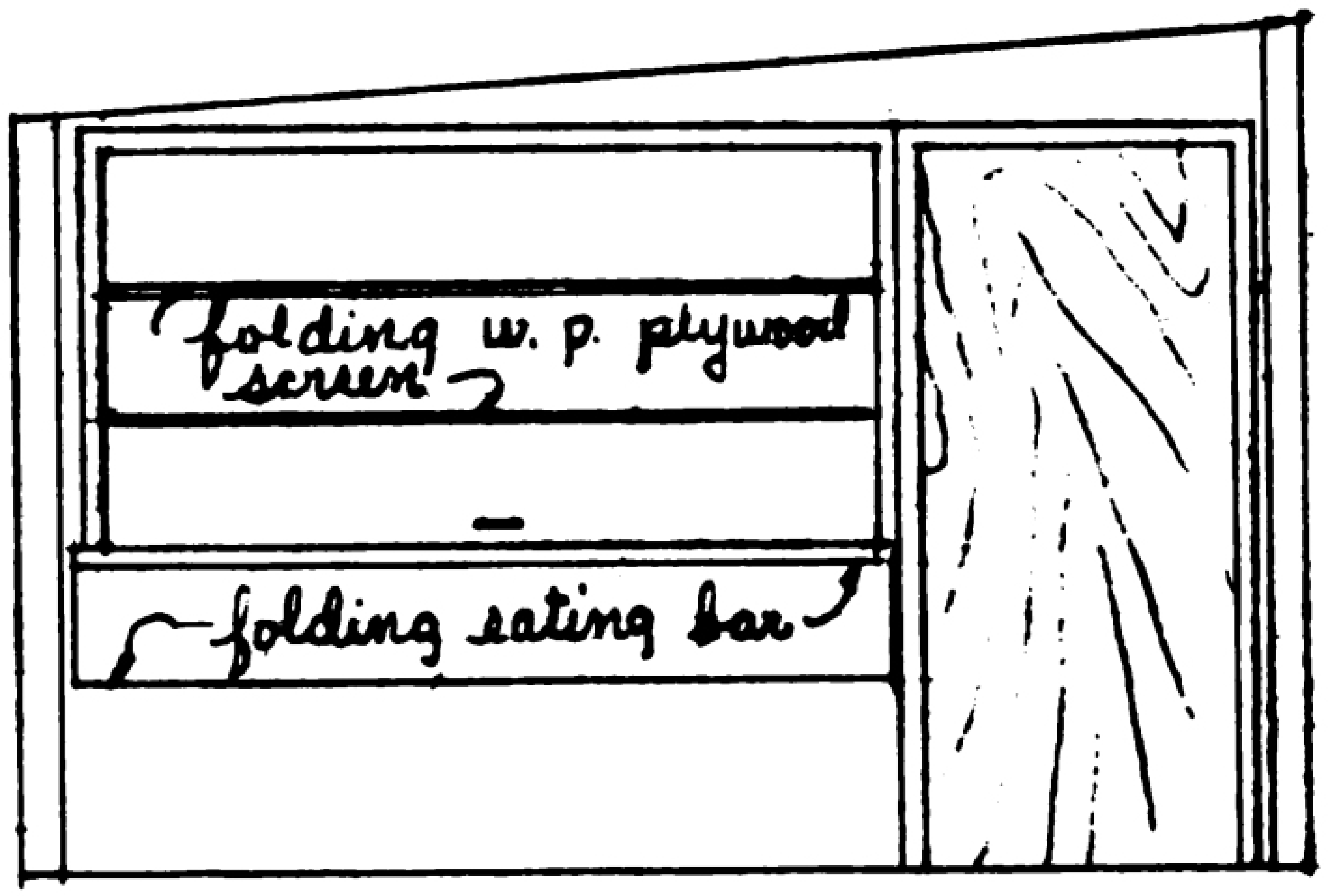
Kitchen section



Bath



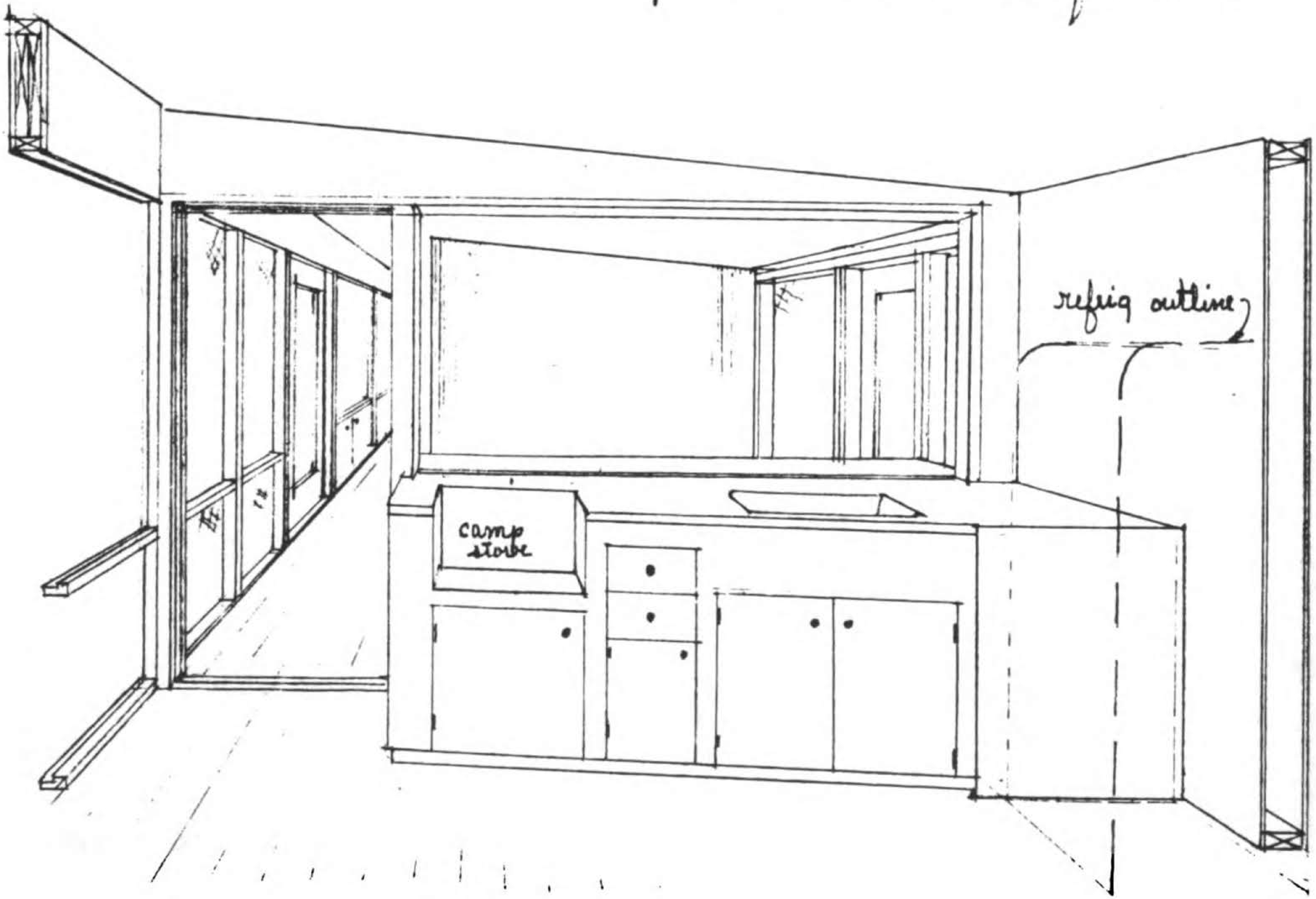
Kitchen



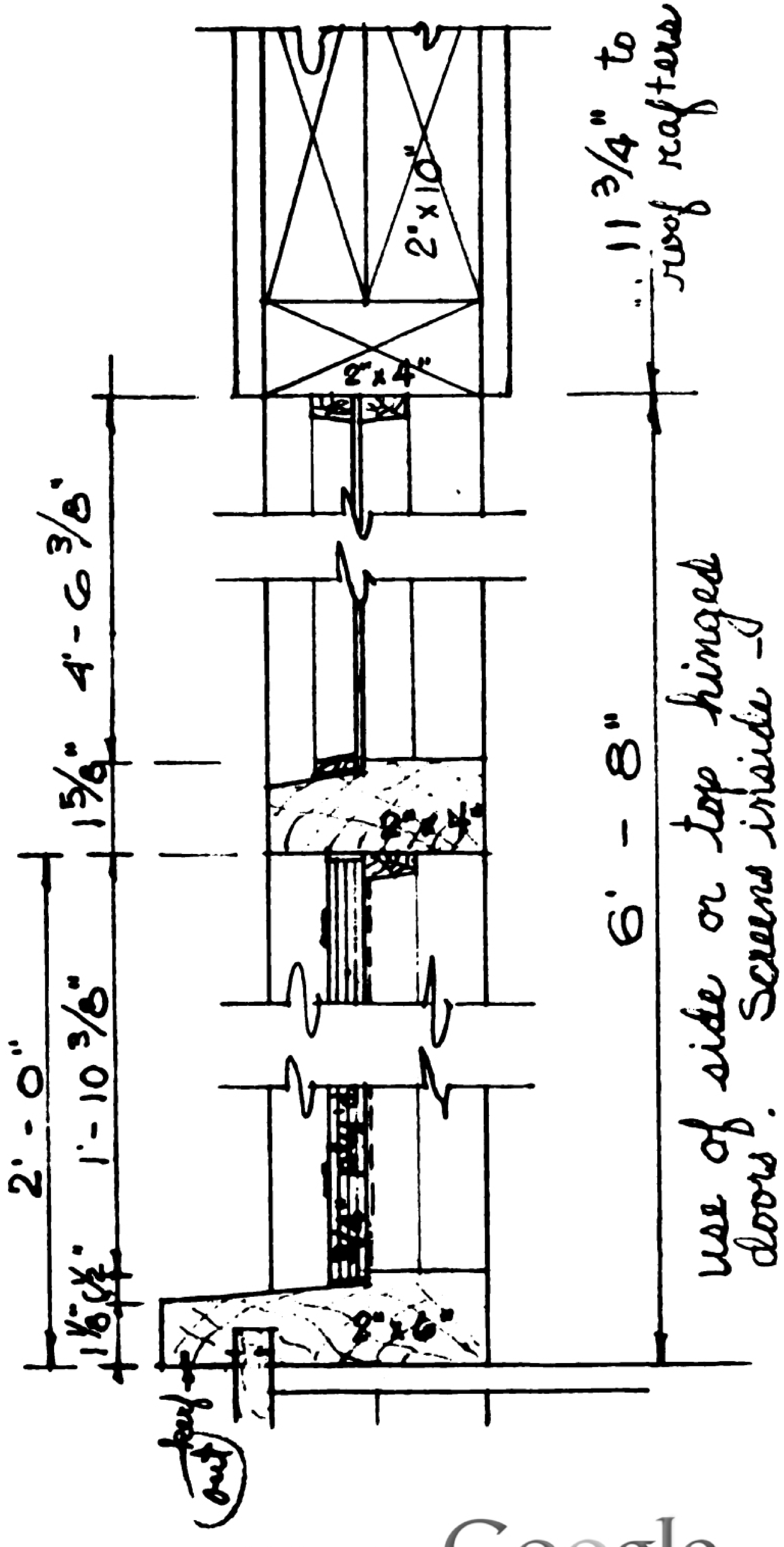
Porch side

Perspective of Kitchen and
Porch areas –

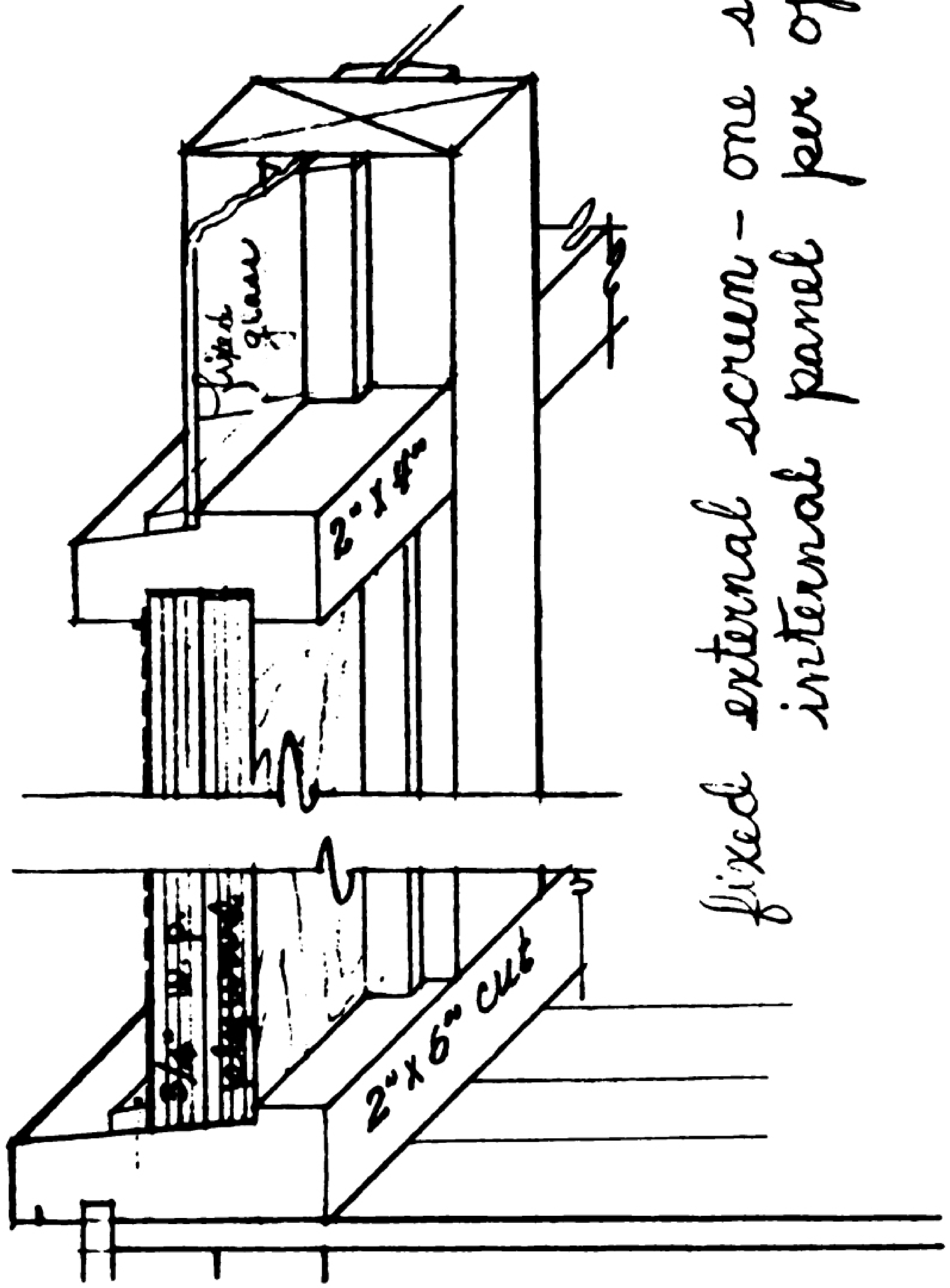
use venetian blind or plywood
panel to separate kitchen from
porch – note recess for stove



Ventilation Panels
under fixed windows



use of side or top hinged doors. Screens inside -



fixed external screen - one sliding internal panel per opening

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Pour top block solid and insert bolts to receive sill.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Tighten bolts. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Now spike the outer header to the inner width. Nail down flooring. Install door and window sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out wall sections A and C on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame walls B and D.

Roof: Place roof joists in place and lay roofing boards. Coat roofing boards with asphalt cement. Place a layer of 15-pound roofing felt over. Use cold type of mastic and brush over felt. Start laying selvage edge of roofing material at end A.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed at top, bottom, and at herringbone bridging.

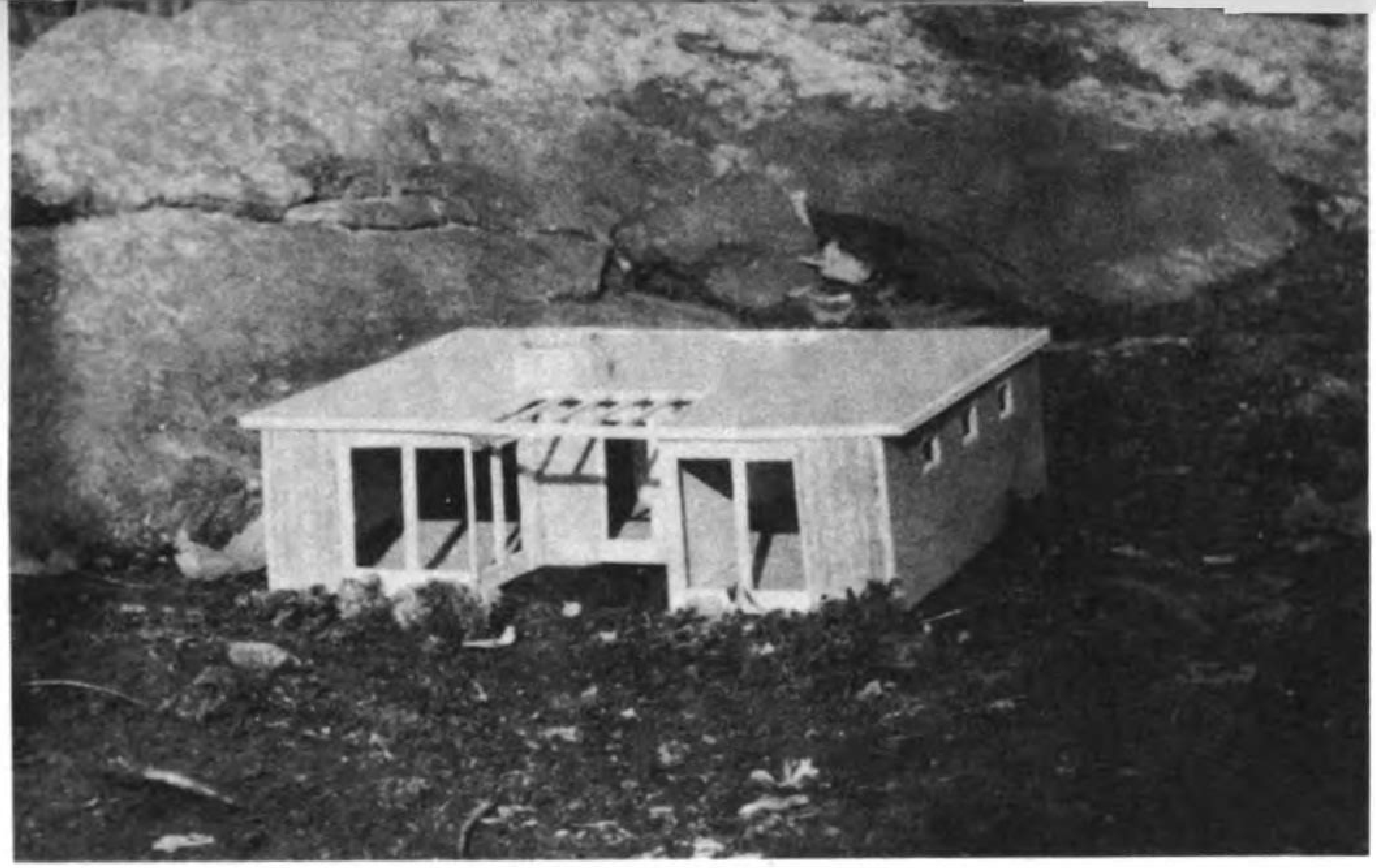
Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of the book.

Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof joists. Use medium thickness in side walls.

Finish as desired. Install plumbing and electrical equipment as convenient.

MATERIALS LIST

Concrete for footings	1 cu. yd.
Blocks for piers	depends upon depth
18 anchor bolts	½ in. x 8 in.
60 2 x 4 14 ft. long	framing, partitions, and windows (cut)
9 2 x 4 16 ft. long	sole and plate
10 2 x 6 16 ft. long	sills (including doors)
37 2 x 6 14 ft. long	roof rafters
39 2 x 8 12 ft. long	floor joists
12 2 x 8 16 ft. long	header (girder)
6 2 x 10 16 ft. long	window wall header
1 4 x 6 14 ft. long	porch
130 lineal ft. of 1 x 6 fascia board	
500 lineal ft. of window bead	
825 board ft. of flooring	
900 board ft. of roofing	
800 board ft. of tongue-and-groove exterior siding (vertical)	
1,100 board ft. of tongue-and-groove (or equal) interior finish	
600 sq. ft. plus waste (about ⅓) ceiling	
3 2 ft. 0 in. x 6 ft. 6 in. interior doors	
3 2 ft. 6 in. x 6 ft. 8 in. interior doors	
1 2 ft. 10 in. x 6 ft. 8 in. interior door	
2 2 ft. 10 in. x 6 ft. 8 in. screen doors	
1,000 sq. ft. medium-thick insulation	
2,400 sq. ft. roofing material (3-ply) and mastic	
8 sheets 4 ft. x 8 ft. x ¾ in. waterproof plywood (cabinets and window vents)	
3 cellar sash (about 16 in. x 33 in.)	
13 yd. 36-in.-wide plastic screening	
Electric wiring: 110-220 volt, 3-wire system	
Plumbing: piping, pump, tank, water heater, water closet, basin, tub, and sink	
Septic tank	
Camp stove or range	
Refrigerator	
Franklin stove (or fireplace)	



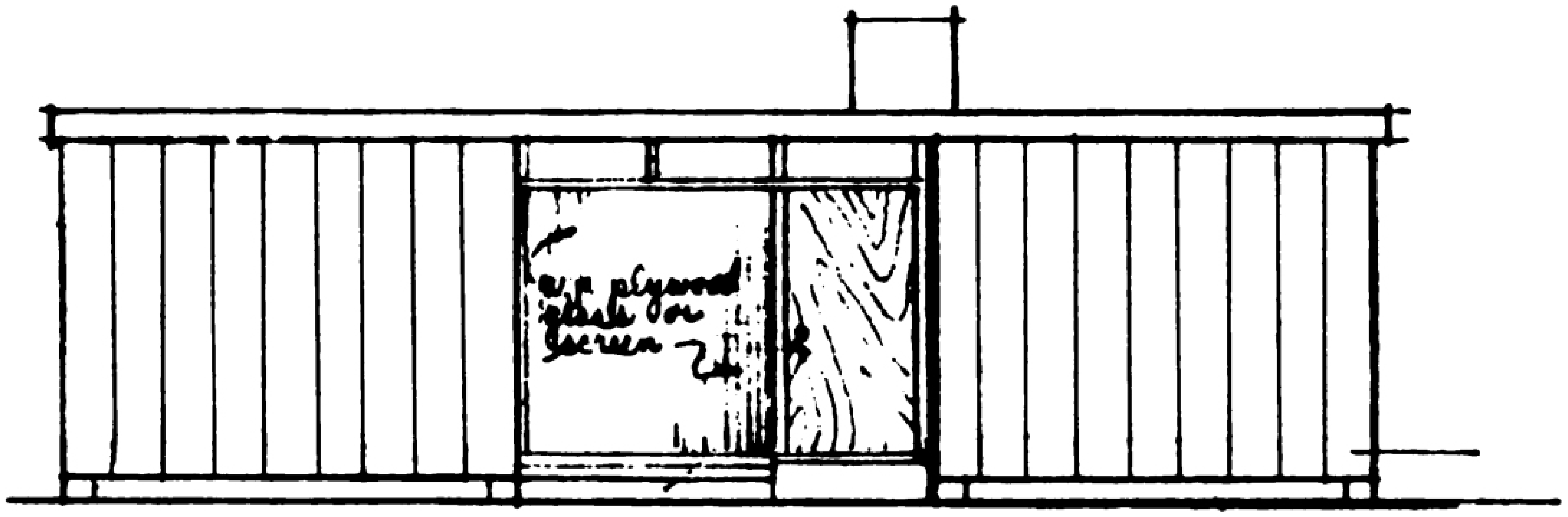
PLAN 5

You'll have to study this plan a bit before you realize how interesting it could be. The central entrance area is like having a porch. In fact, it could be screened on both sides instead of being partially enclosed as shown on the plan. If you prefer this arrangement, enclose the ends toward the bedroom and living room. Even when you aren't able to use the central roofed area, you'll find that there is plenty of room for dining and relaxing in the living area of the cabin.

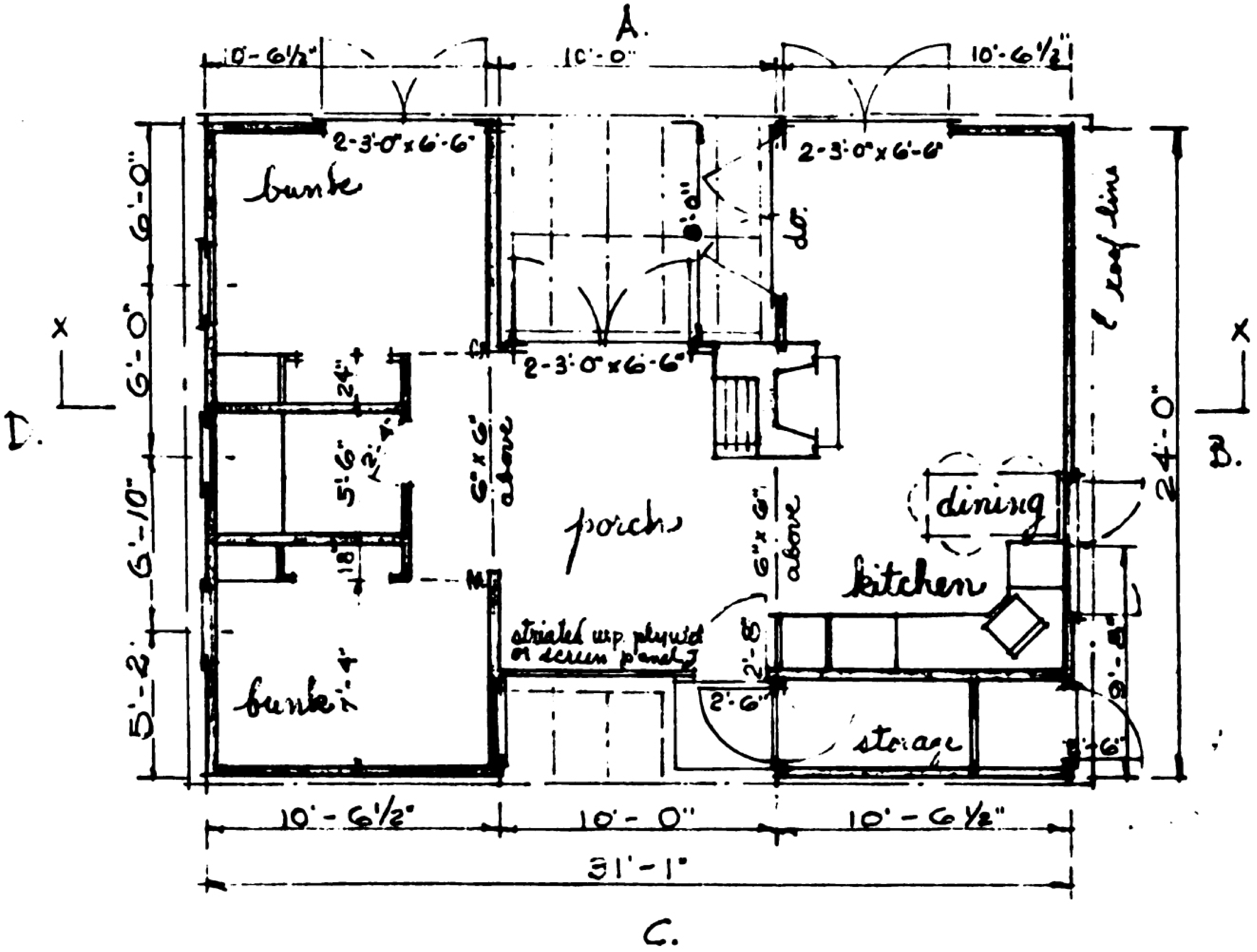
The patio formed by the bedroom and living-room areas could be paved as described for the tenth cottage of this series of plans. The roof could also be screened. Corrugated Fiberglas in colors could also be used.

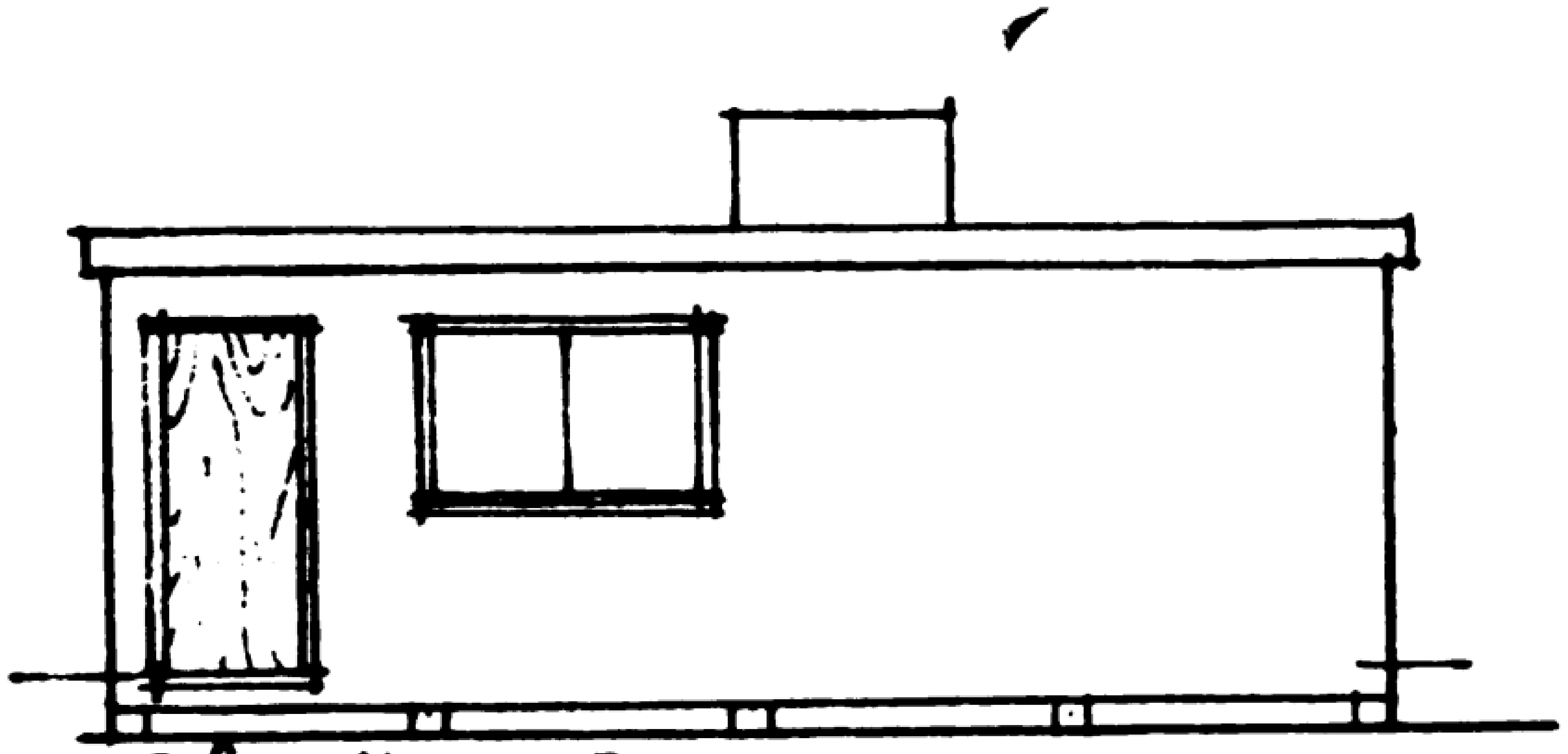
The outdoor closet areas near the entrance could be used for storage of an outboard motor, a pump, water heater, and other equipment.

If the fireplace is omitted, be sure to brace this corner, as it carries a considerable roof load.

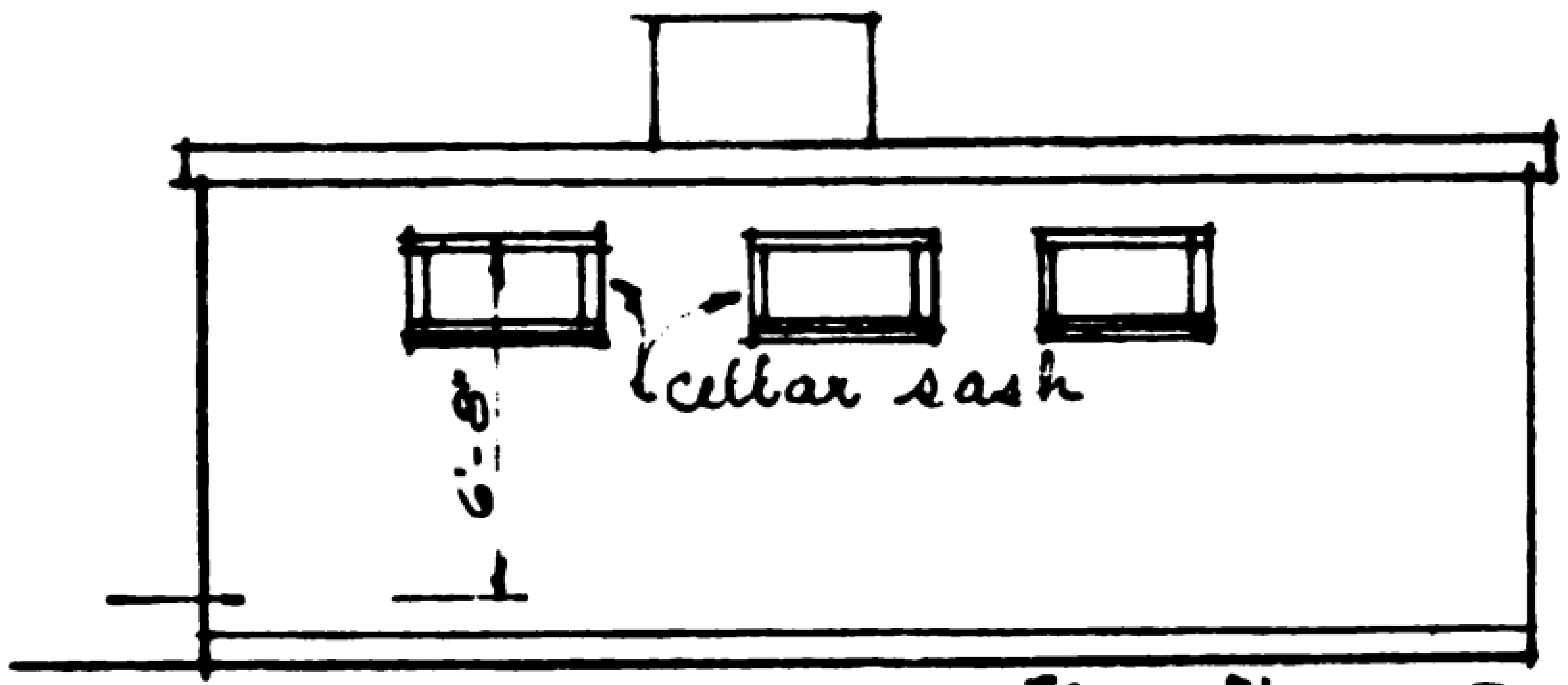

w.p. plywood shade or screen

Elevation C.

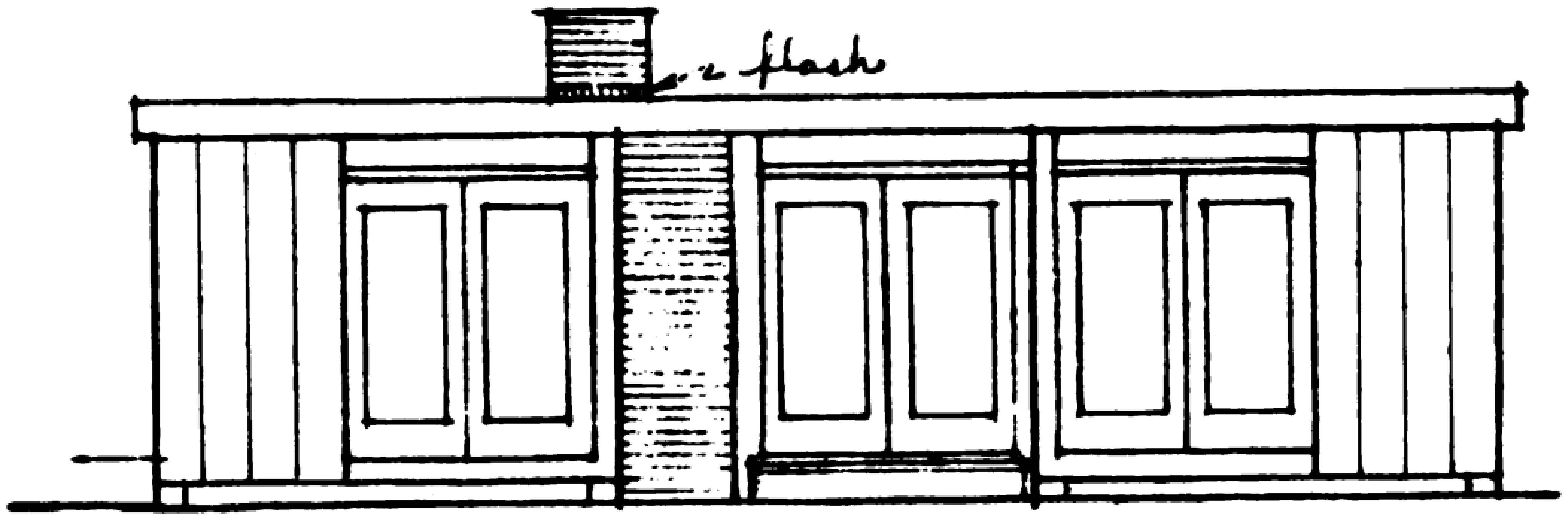

A.
10'-6½"
10'-0"
10'-6½"
2-3'-0"x6'-6"
2-3'-0"x6'-6"
bunks
do.
2-3'-0"x6'-6"
x
x
D.
B.
6'-0"
6'-0"
6'-10"
5'-2"
24"
5'-6"
18"
6"x6" above
porch
6"x6" above
dining
kitchen
℄ roof line
24'-0"
striated w.p. plywd or screen panels
2'-8"
2'-6"
2'-6"
bunks
storage
10'-6½"
10'-0"
10'-6½"
31'-1"
C.



Elevation B.



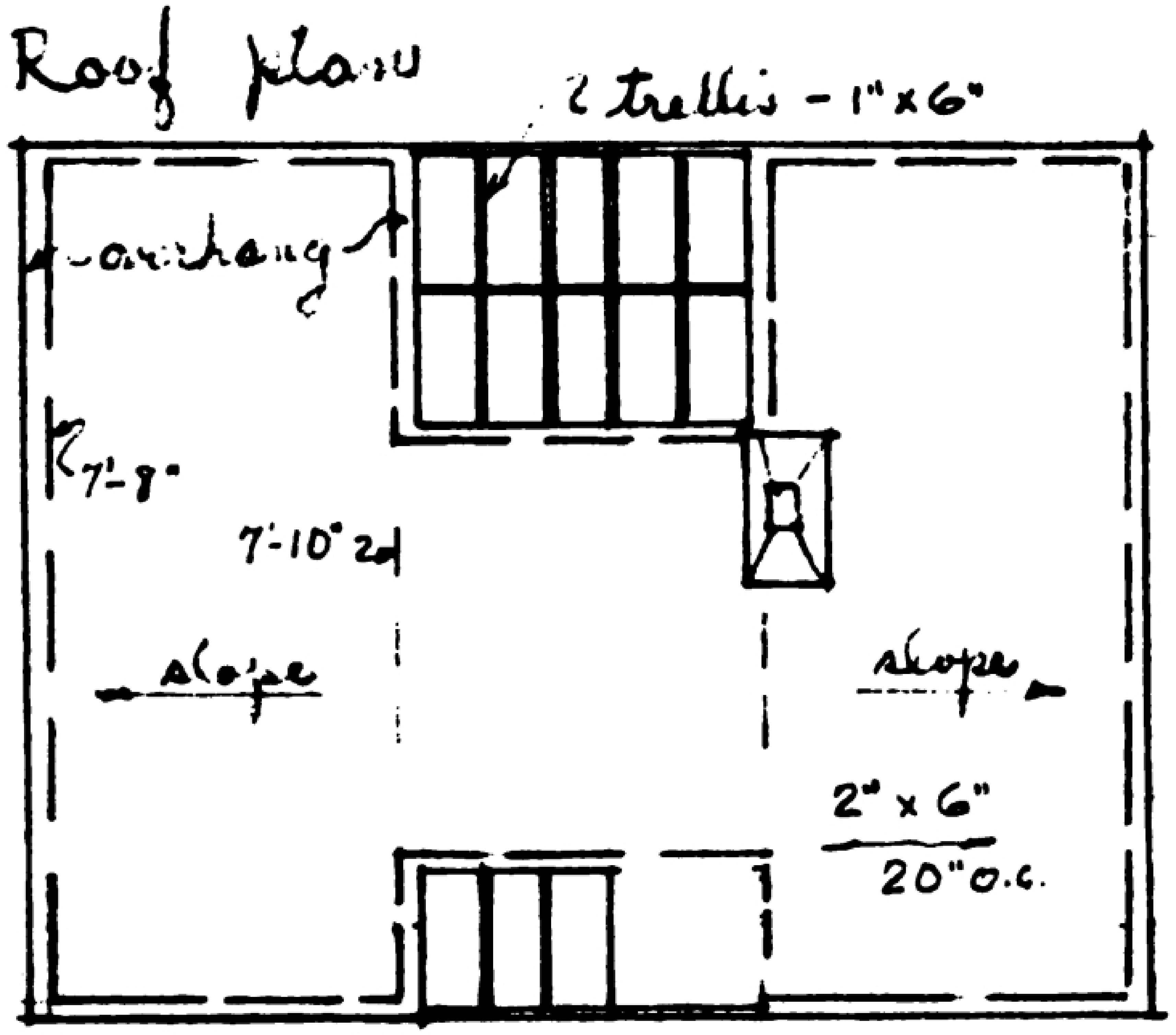
Elevation D.

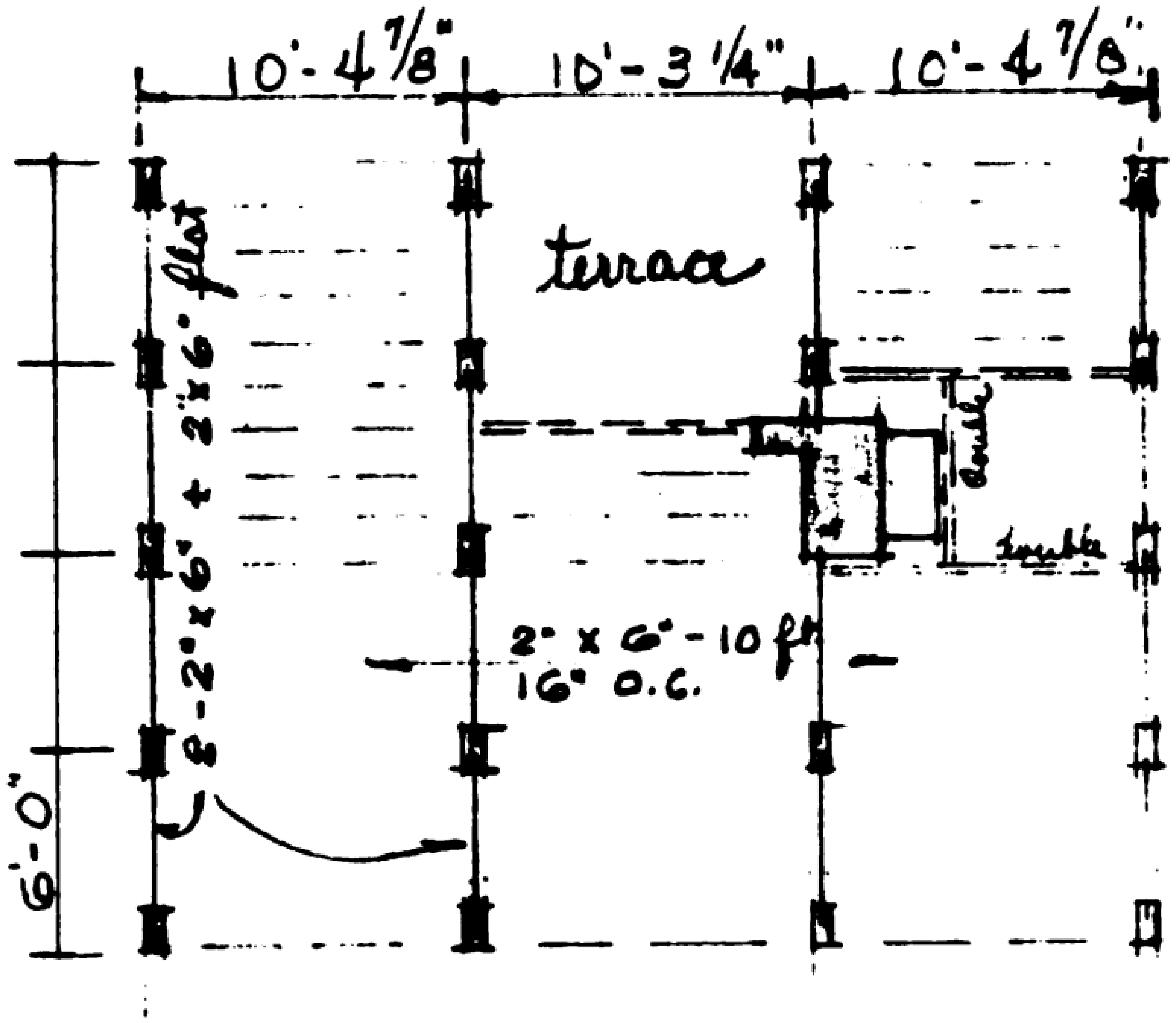


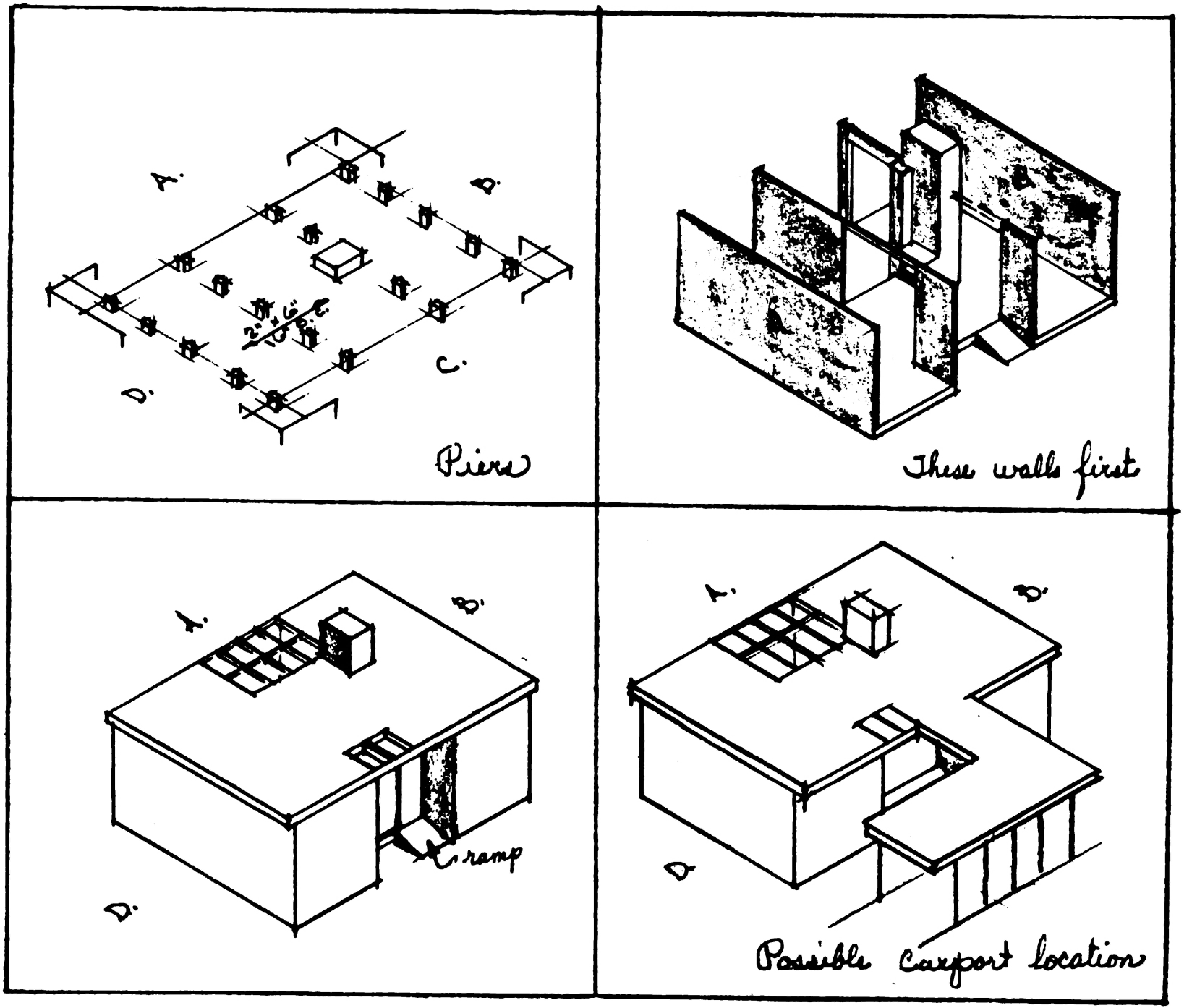
Elevation A.

roof slope achieved by lower outer wall.

Roof plan



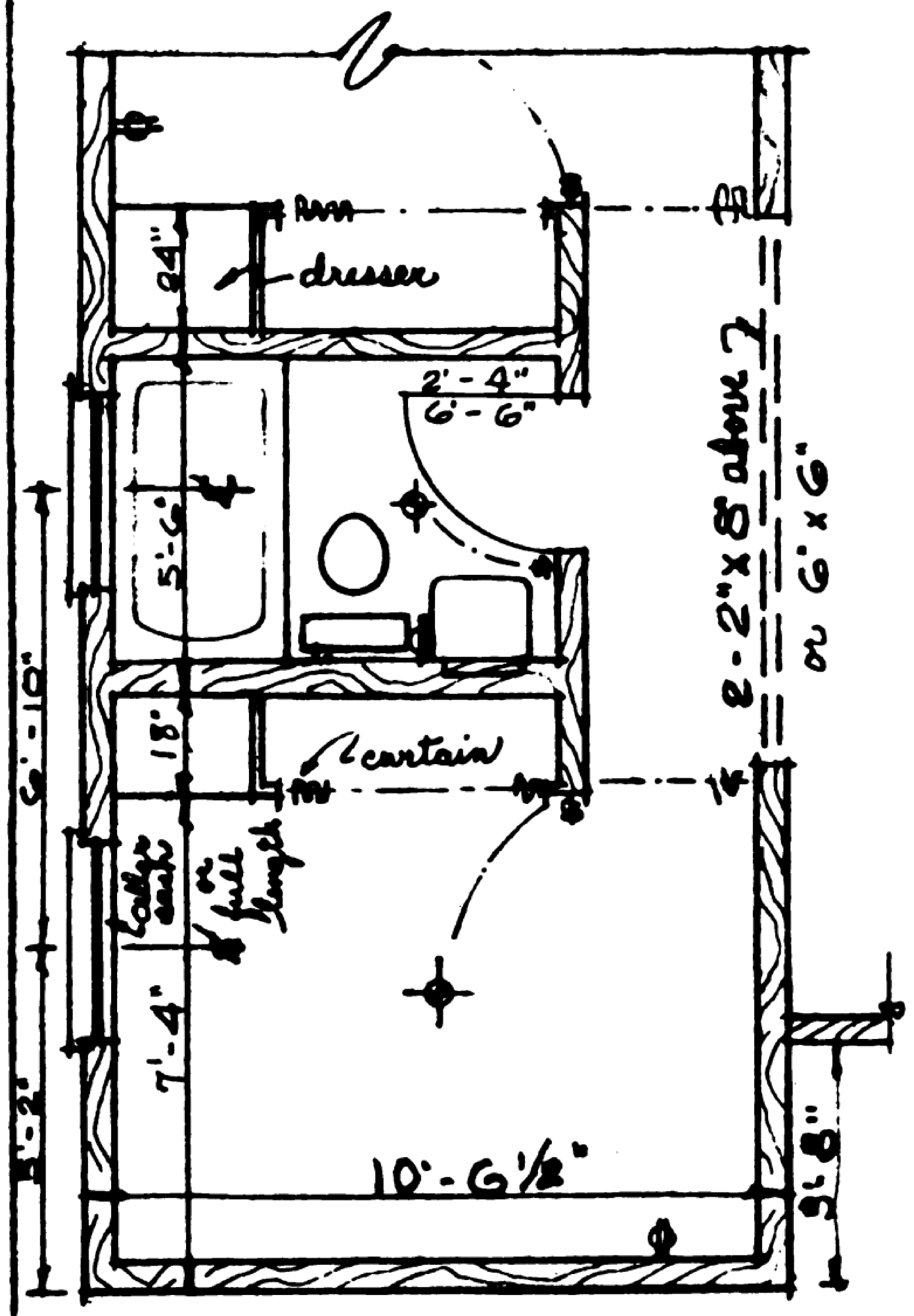




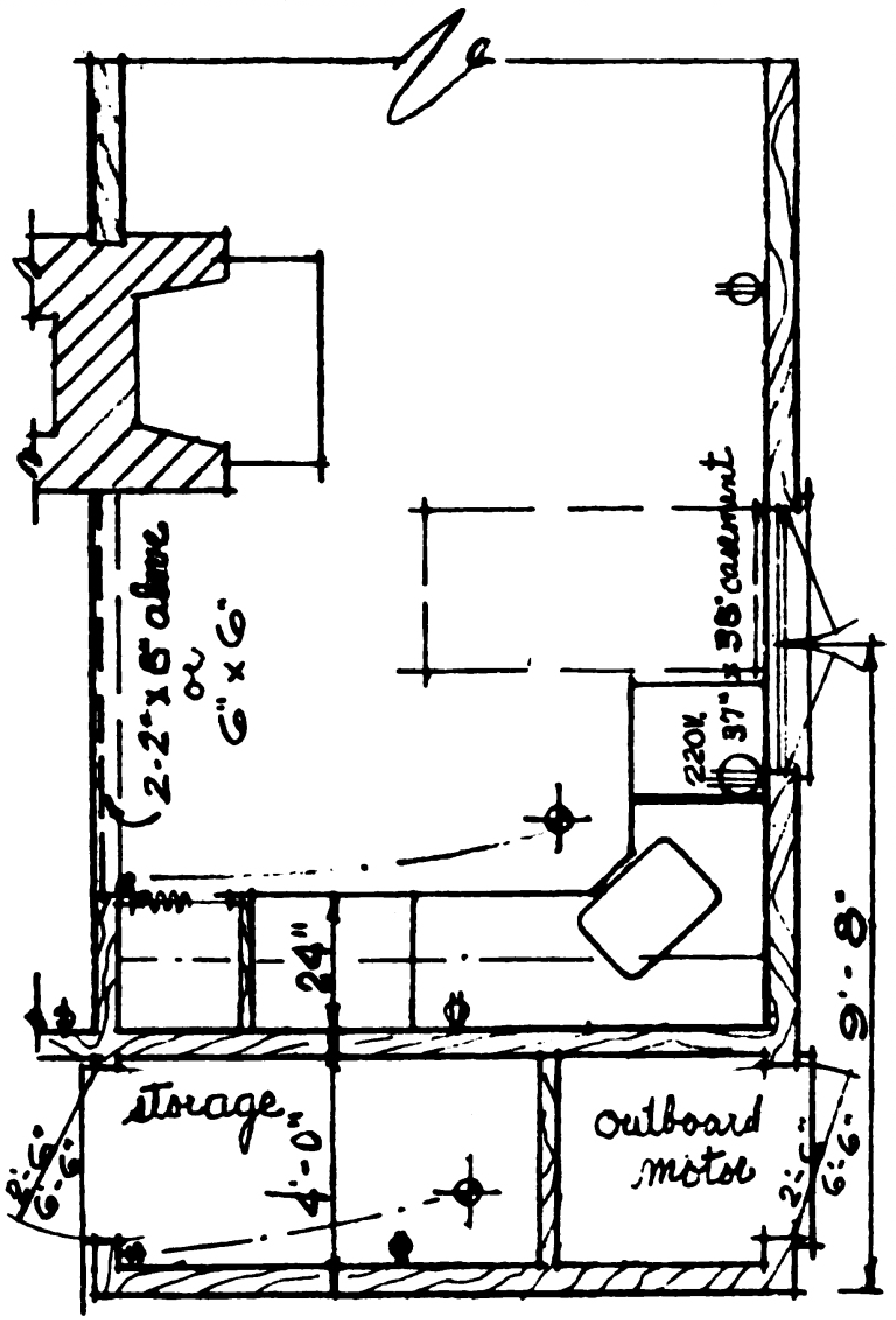
Piers

These walls first

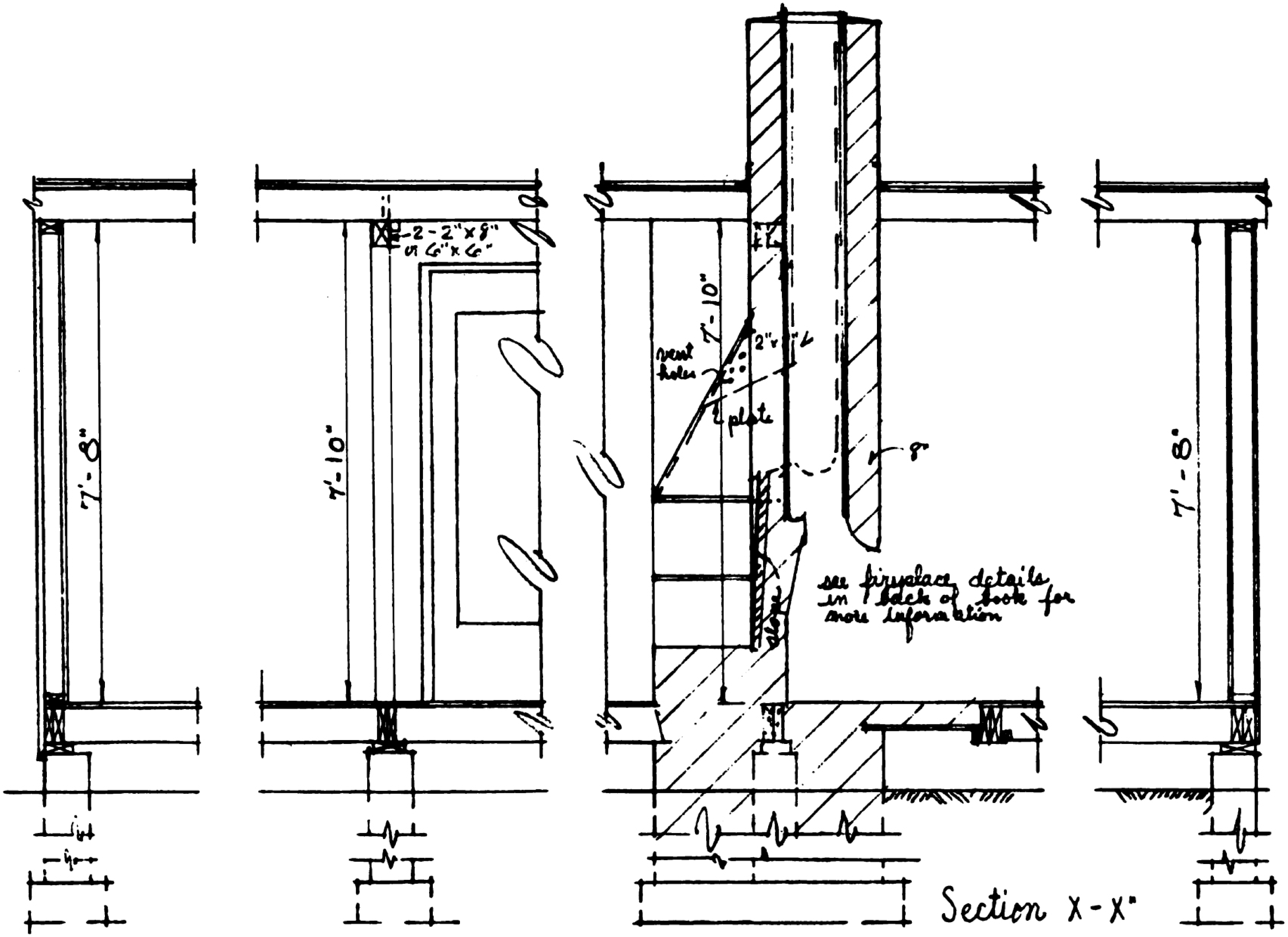
Possible carport location



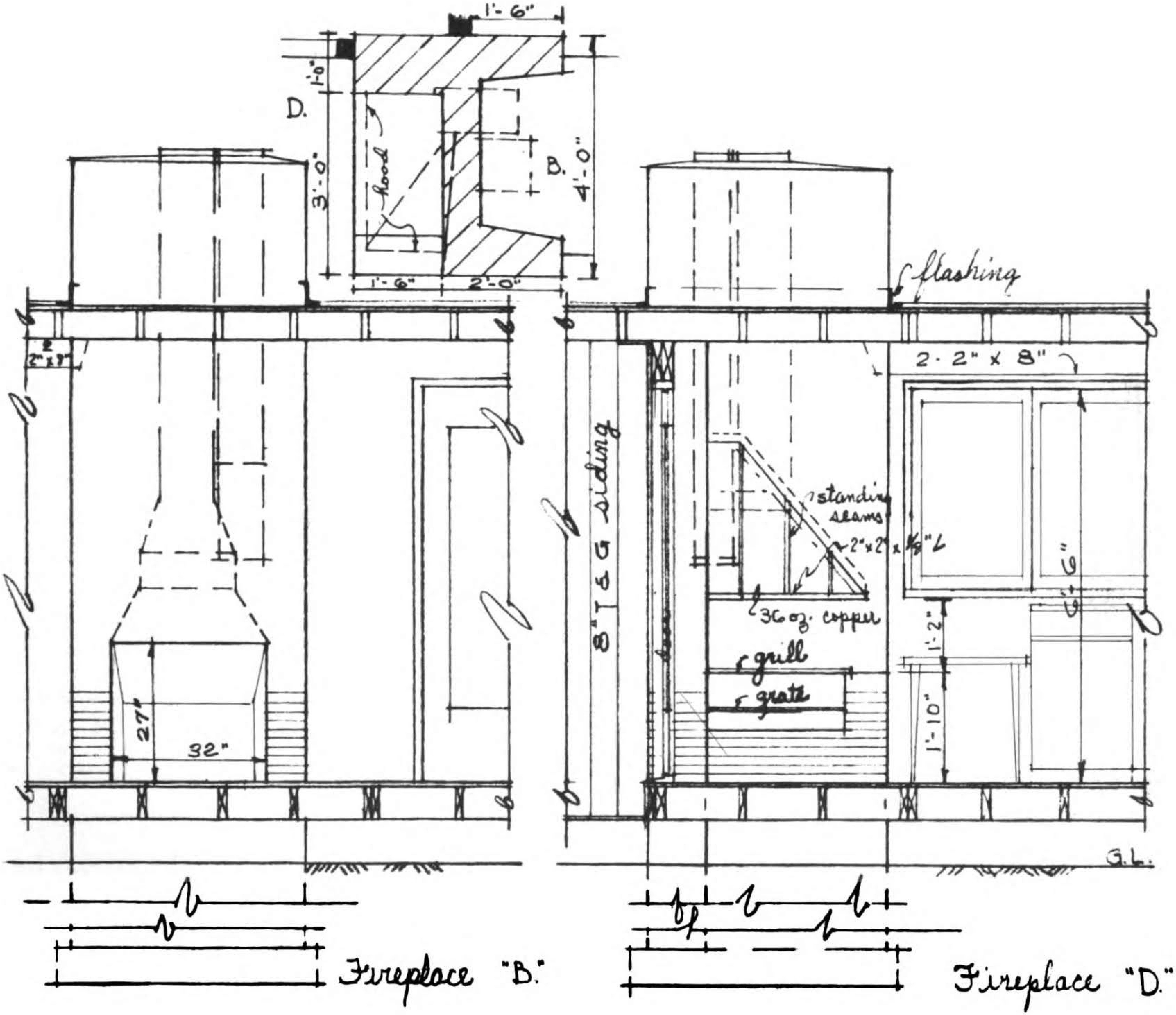
Bath & Bedroom Plan



Kitchen-Dining Plan


7'-8"
2-2"x8"
or 6"x6"
7'-10"
7'-10"
vent holes
2"x"L
L plate
8"
slope
see fireplace details in back of book for more information
7'-8"

Section X-X"



Fireplace "B."

Fireplace "D."

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put in place to receive sill. Fireplace foundation made of rock and poured concrete.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Spike outer header to inner header. Nail down flooring. Install door sills and lay sole around outer edge and under partitions. Build ramp for entrance.

Wall Framing: Lay out long walls on floor. When complete, tip into place and use temporary bracing to hold in vertical position. Frame remaining walls. Build fireplace up to roof level. Install flashing for roof.

Roof: Place roof joists in place and lay roofing boards. Coat roofing boards with asphalt cement. Nail a layer of 15-pound roofing felt over. Build up two more layers of roofing felt over this. Complete roofing and chimney flashing. Build trellis and entrance protection.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed at top, bottom, and at herringbone bracing. Nail striated panels at entrance.

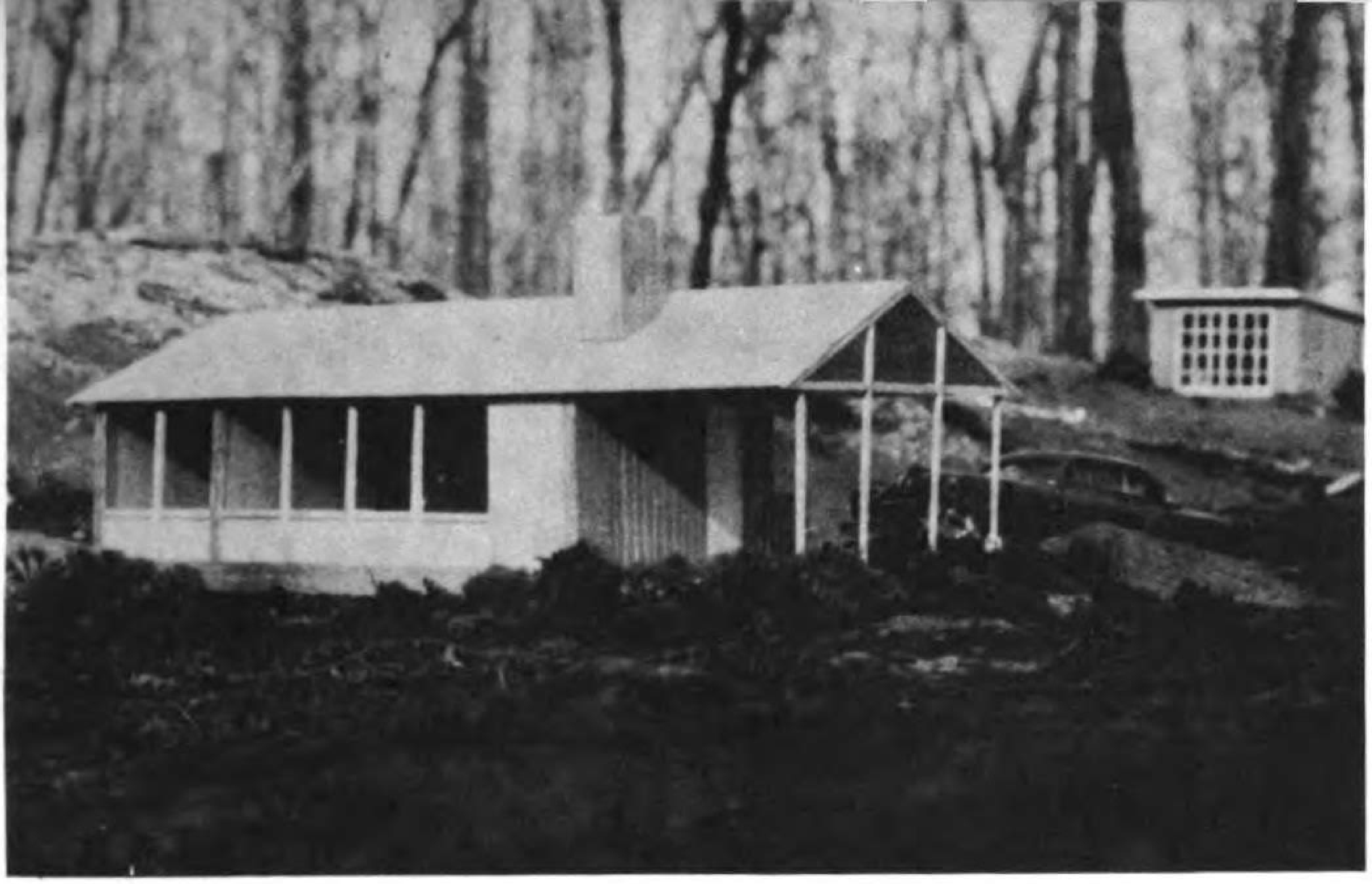
Doors and Window Openings: Follow details on preceding page or in the last section of this book.

Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof joists. Use medium thickness in side walls.

Finish interior as desired. Install plumbing and electrical equipment as required.

MATERIALS LIST

Concrete for footings	1 cu. yd.
Block for piers	depends upon depth
Bricks	about 4,000
3 8 in. x 8 in. flue lining	
5 12 in. x 12 in. flue lining	
19 anchor bolts	½ in. x 8 in.
60 2 x 4 16 ft. long	framing partitions, and windows
16 2 x 4 12 ft. long	sole, header, and plates
63 2 x 6 10 ft. long	floor joists
72 2 x 6 12 ft. long	sills, header (girder), roof joists
1 4 x 4 8 ft. long	corner, living room
1 6 x 6 18 ft. long	beam (porch-cut length)
140 lineal ft. of 1 x 6 fascia and lattice	
90 lineal ft. of 1 in. (or equal) window bead	
850 board ft. of flooring	
900 board ft. of roofing	
1,300 board ft. of tongue-and-groove exterior siding (vertical)	
2 sheets ⅜ in. x 4 ft. x 8 ft. waterproof striated plywood (alternate-screening)	
1,800 board ft. of tongue-and-groove interior finish	
600 sq. ft., plus waste, ceiling finish	
1,200 sq. ft. of medium-thick insulation	
2,000 sq. ft. roofing finish (3-ply) and mastic	
1 2 ft. 4 in. x 6 ft. 6 in. bathroom door	
2 2 ft. 6 in. x 6 ft. 6 in. exterior doors	
3 pairs 3 ft. x 6 ft. 6 in. single-panel exterior doors	
1 2 ft. 8 in. x 6 ft. 6 in. exterior front door	
3 pairs 3 ft. x 6 ft. 6 in. screen doors	
1 2 ft. 8 in. x 6 ft. 6 in. screen door	
3 sheets 4 ft. x 8 ft. x ¾ in. waterproof plywood	
4 cellar sash (about 28 in. x 33 in.)	
1 casement window 37 in. x 38 in.	
Electric wiring: 110-220 volt, 3-wire system	
Plumbing: piping, pump, tank, water heater, seat, basin, tub, sink	
Septic tank	
Range	
Refrigerator	

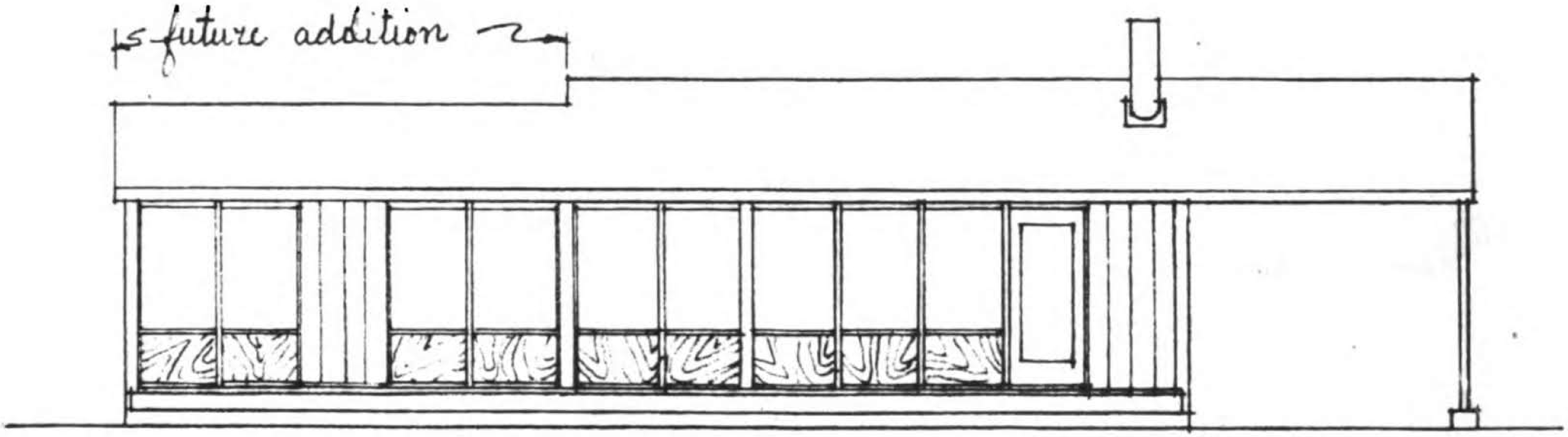


PLAN 6

This is another core-type cottage. The dining-kitchen area of this cabin is of particular interest. It is about as simple as you could make it, but you'll find the areas very adequate. The roof overhang, with the underside brought into the living area, is particularly interesting. Recessed lighting hidden above would give a warm feeling to this cottage at night. You can substitute a Franklin or Acorn fireplace for the one shown in the drawings.

The car port can be screened in to form a porch if you'd rather use the space in this way. I've found that plastic screening is very easy to use. It can be left permanently attached and exposed to weather. It doesn't need painting and won't streak the wood.

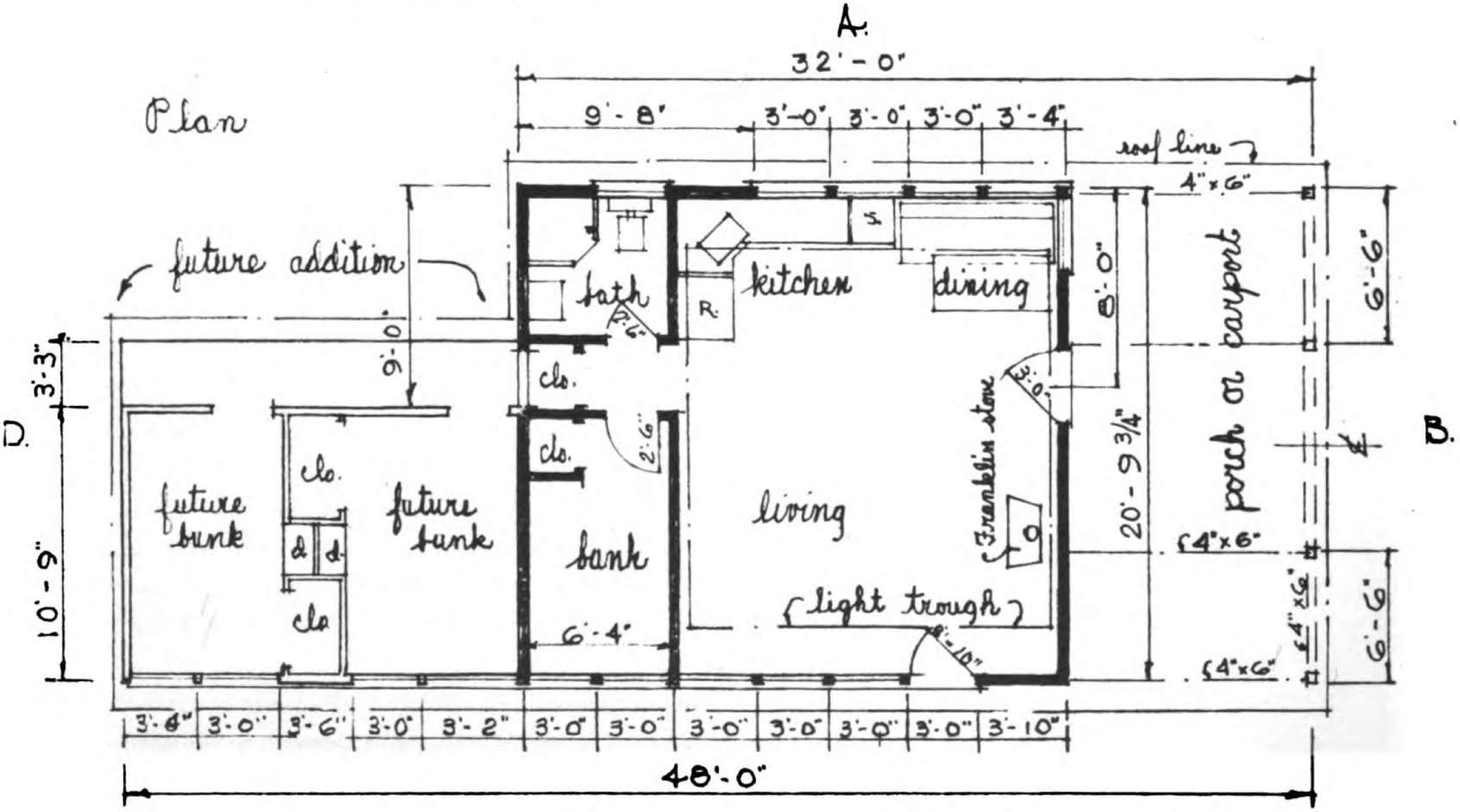
The ceiling of this cottage could be finished with cedar or cypress siding like the second cottage if you like this treatment. Because of the relatively low side walls, be sure to carry the ceiling up into the peak.

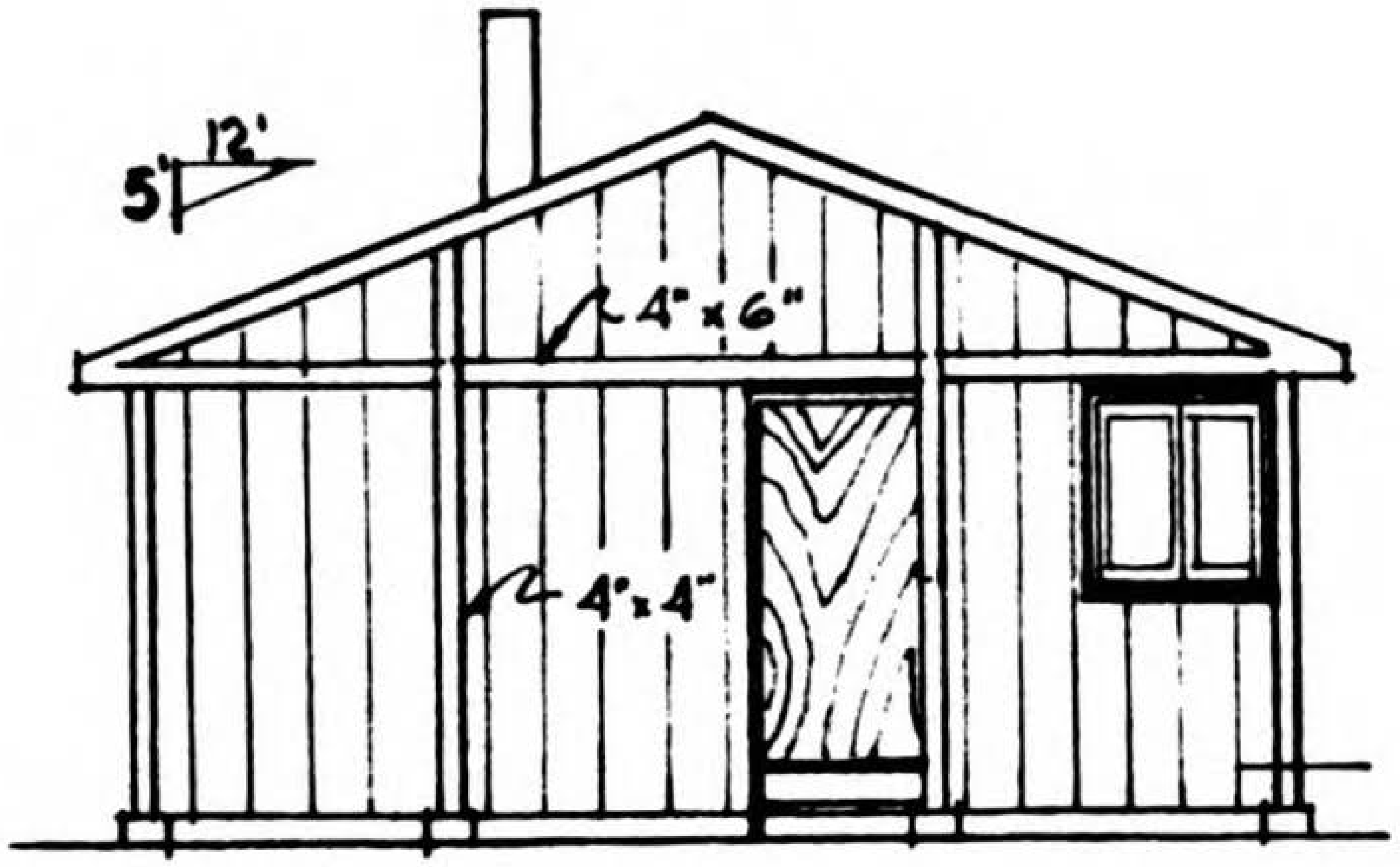


have as many vents
move as seems desirable

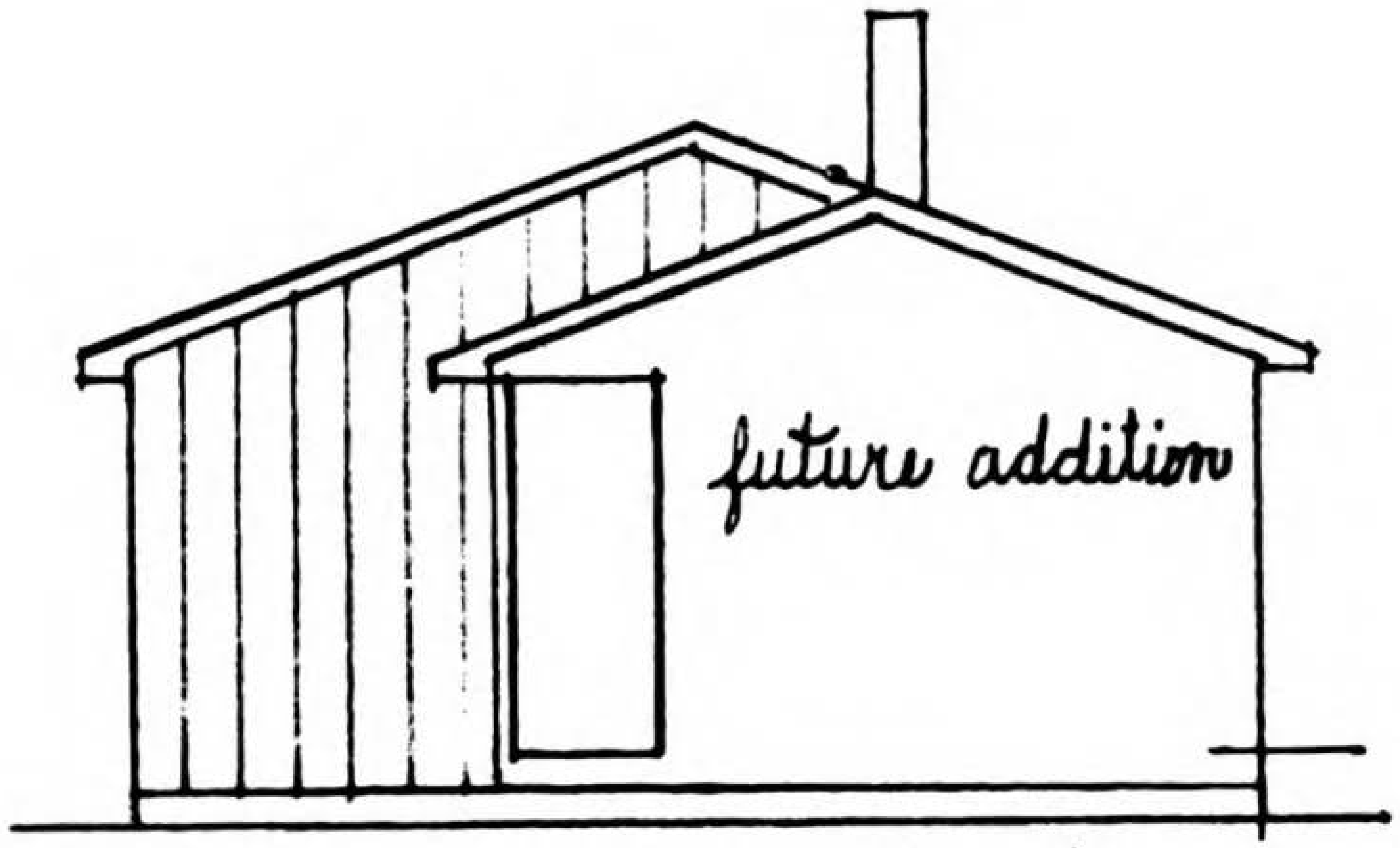
Elevation C.

Plan



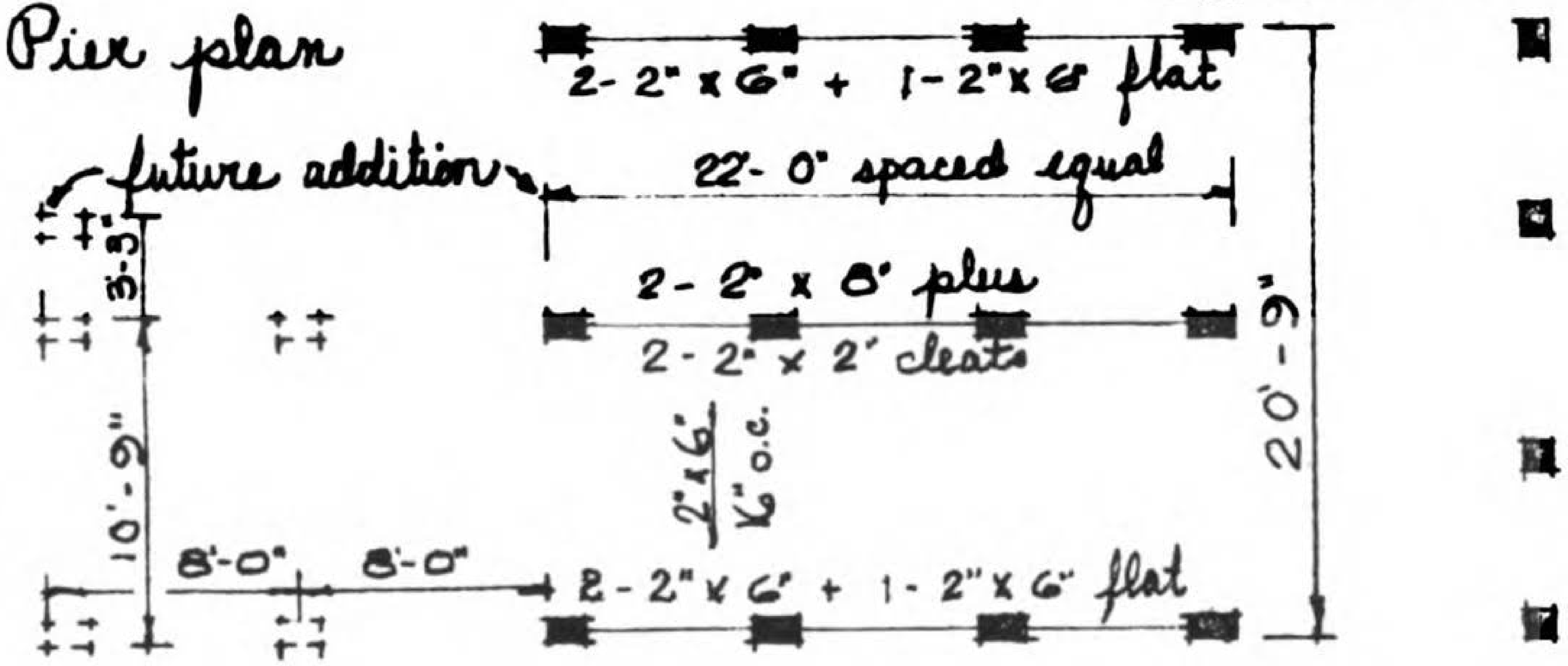


Elevation B.

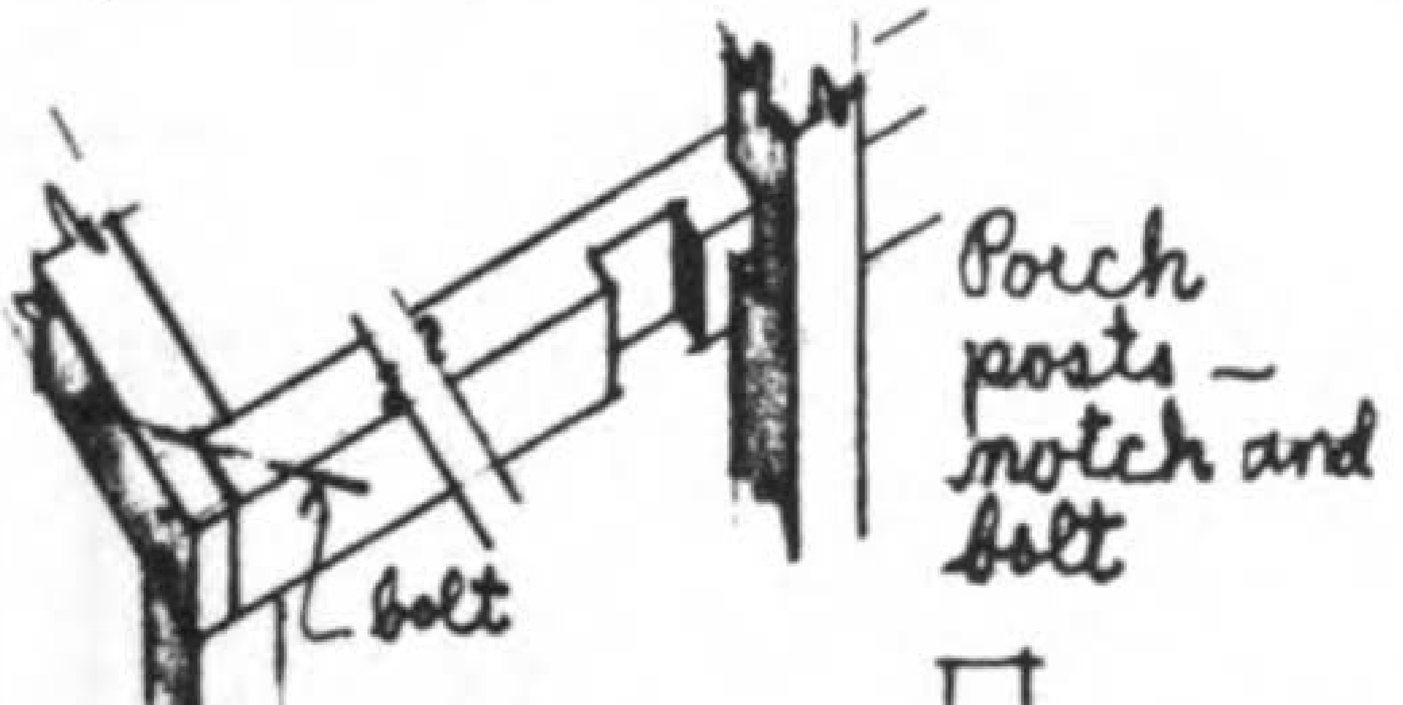


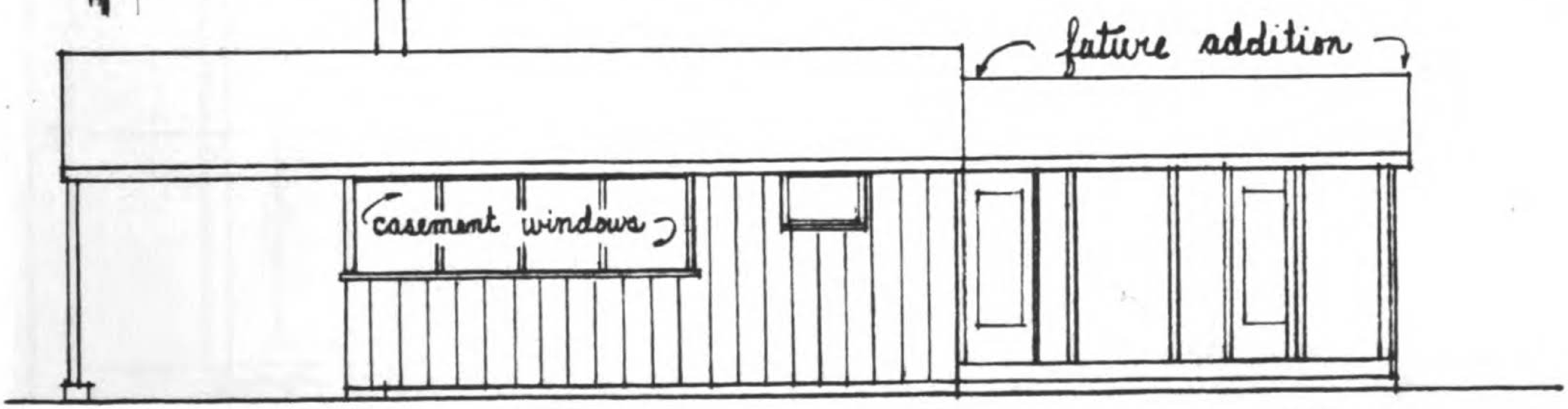
Elevation D.

Pier plan

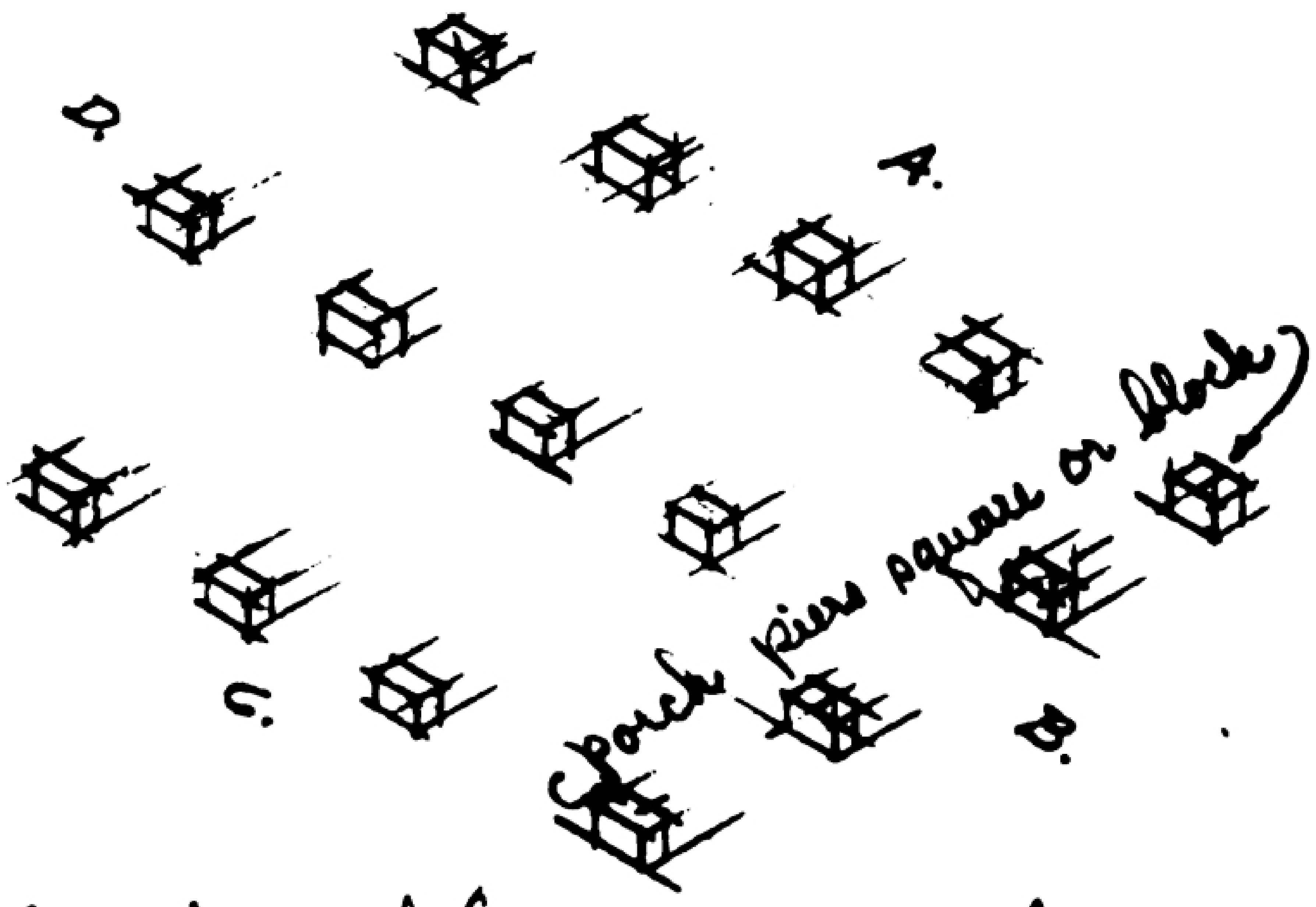


Double framing at end walls and under partitions

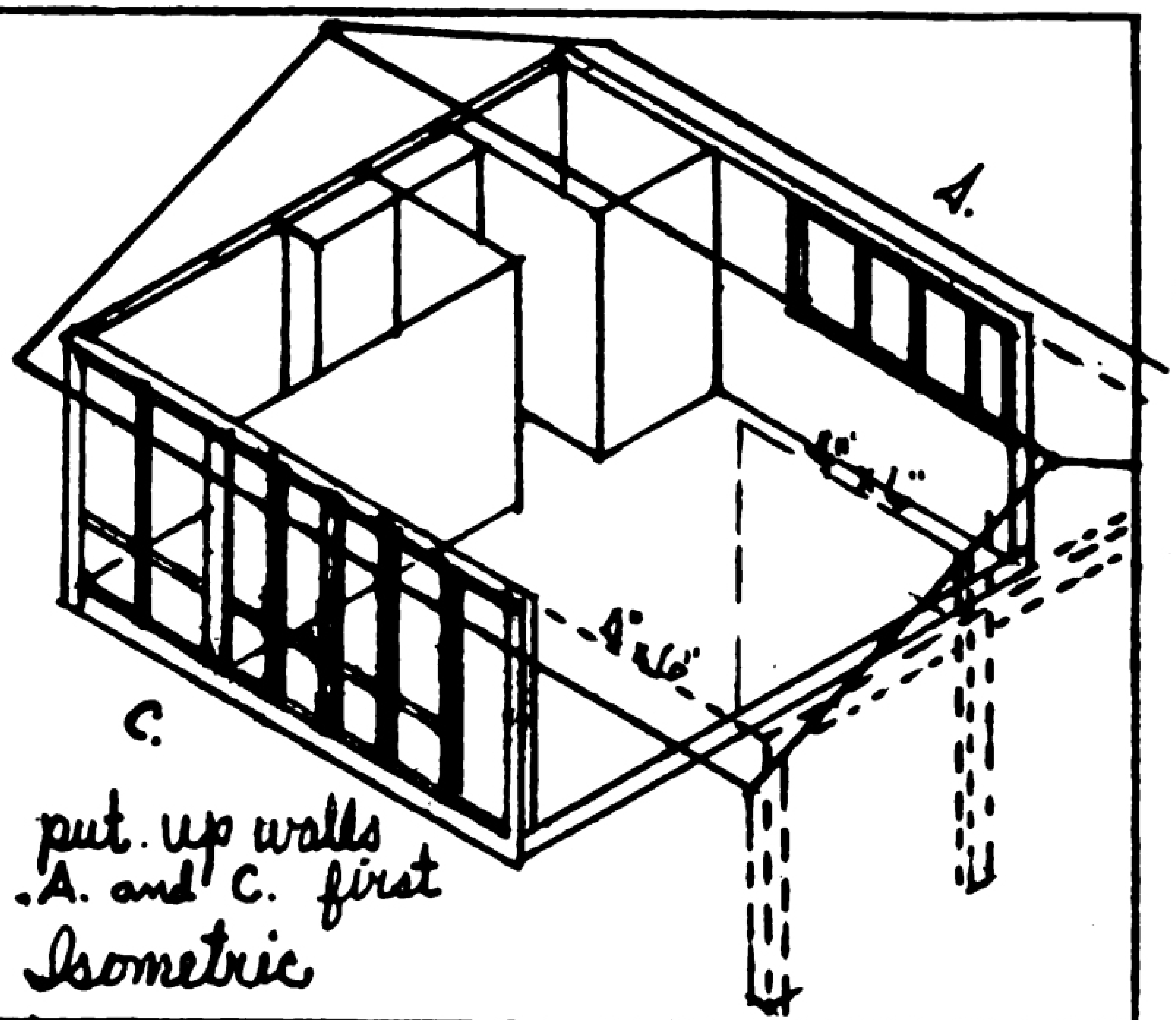




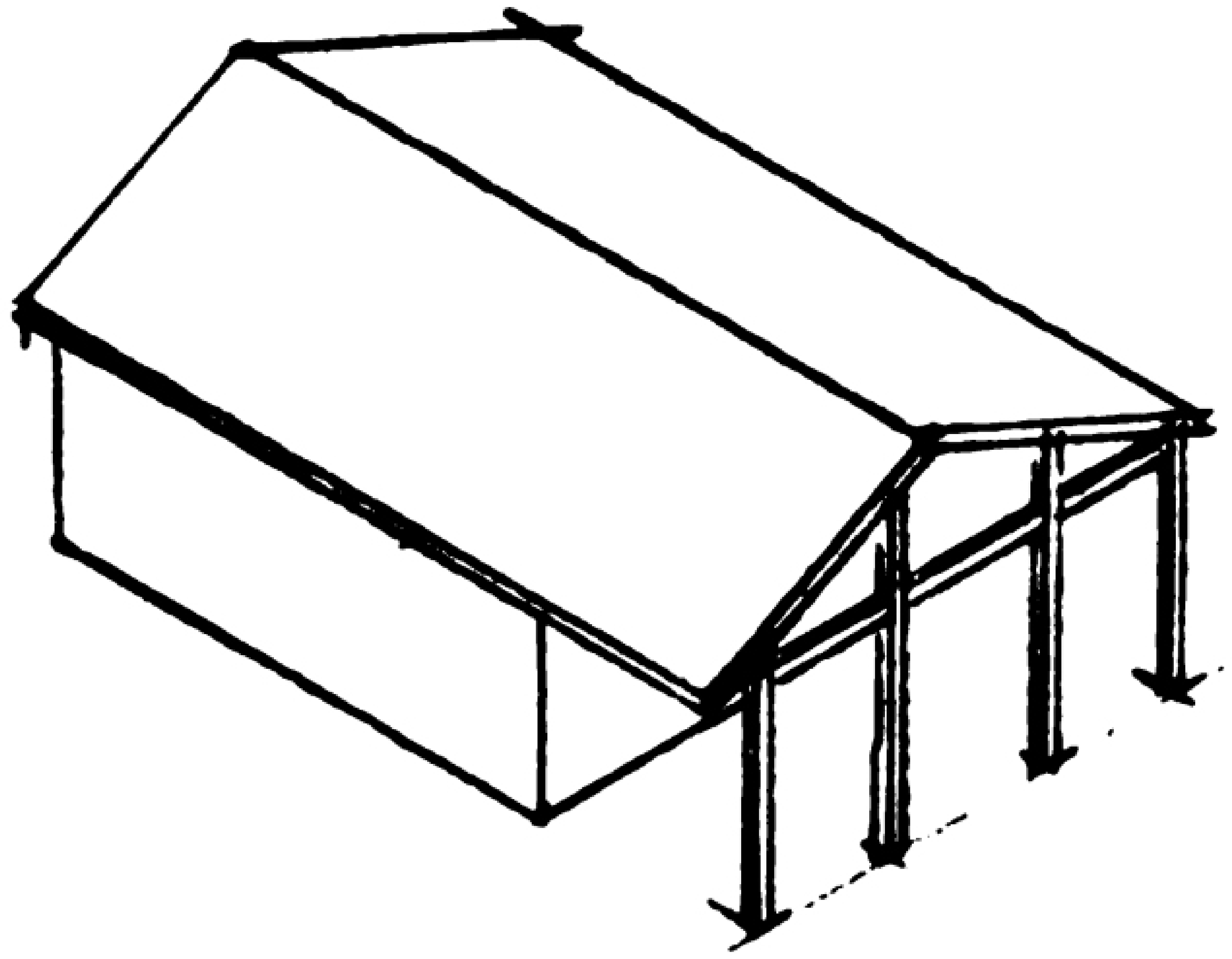
Elevation A.



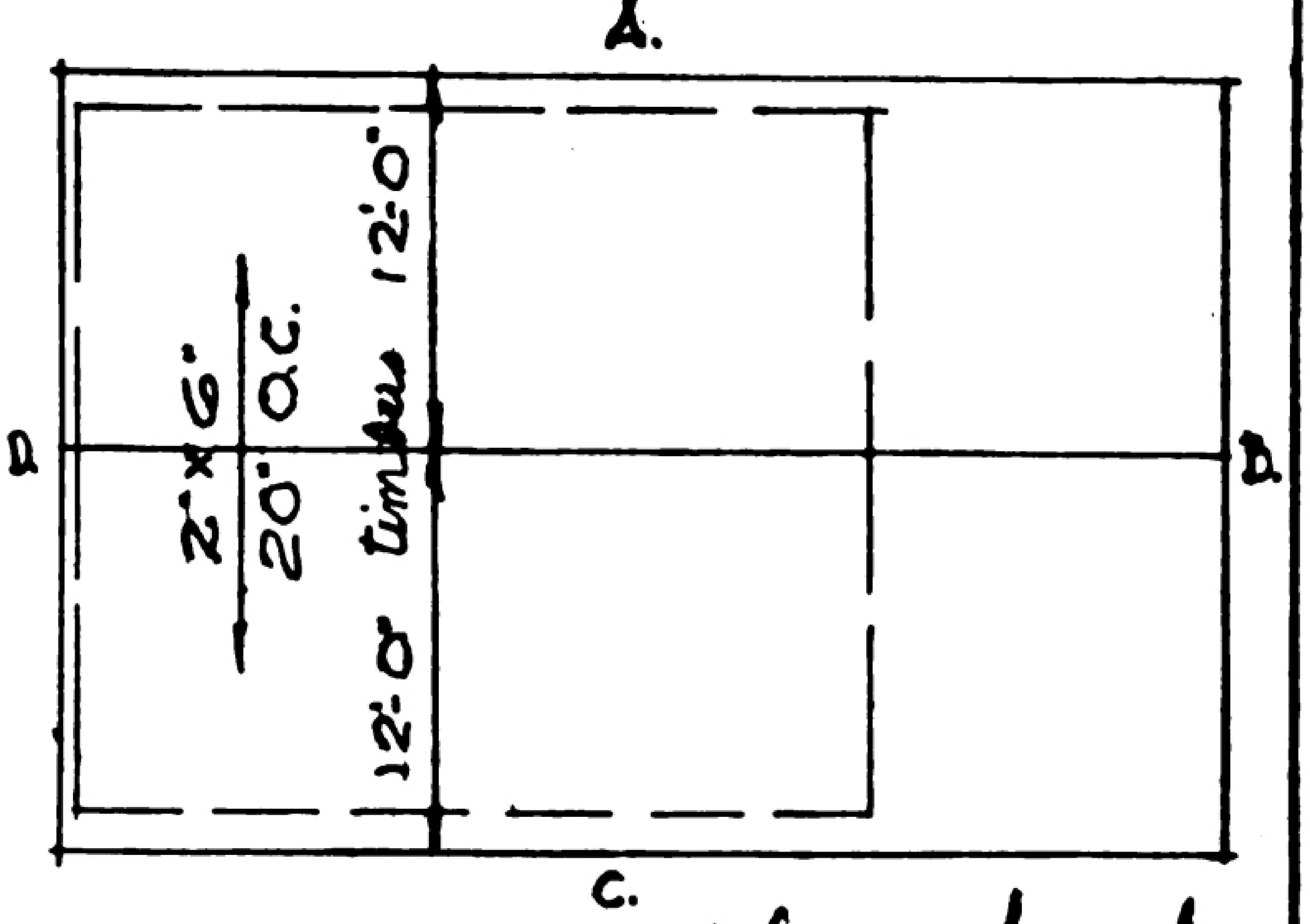
Isometric of house piers only



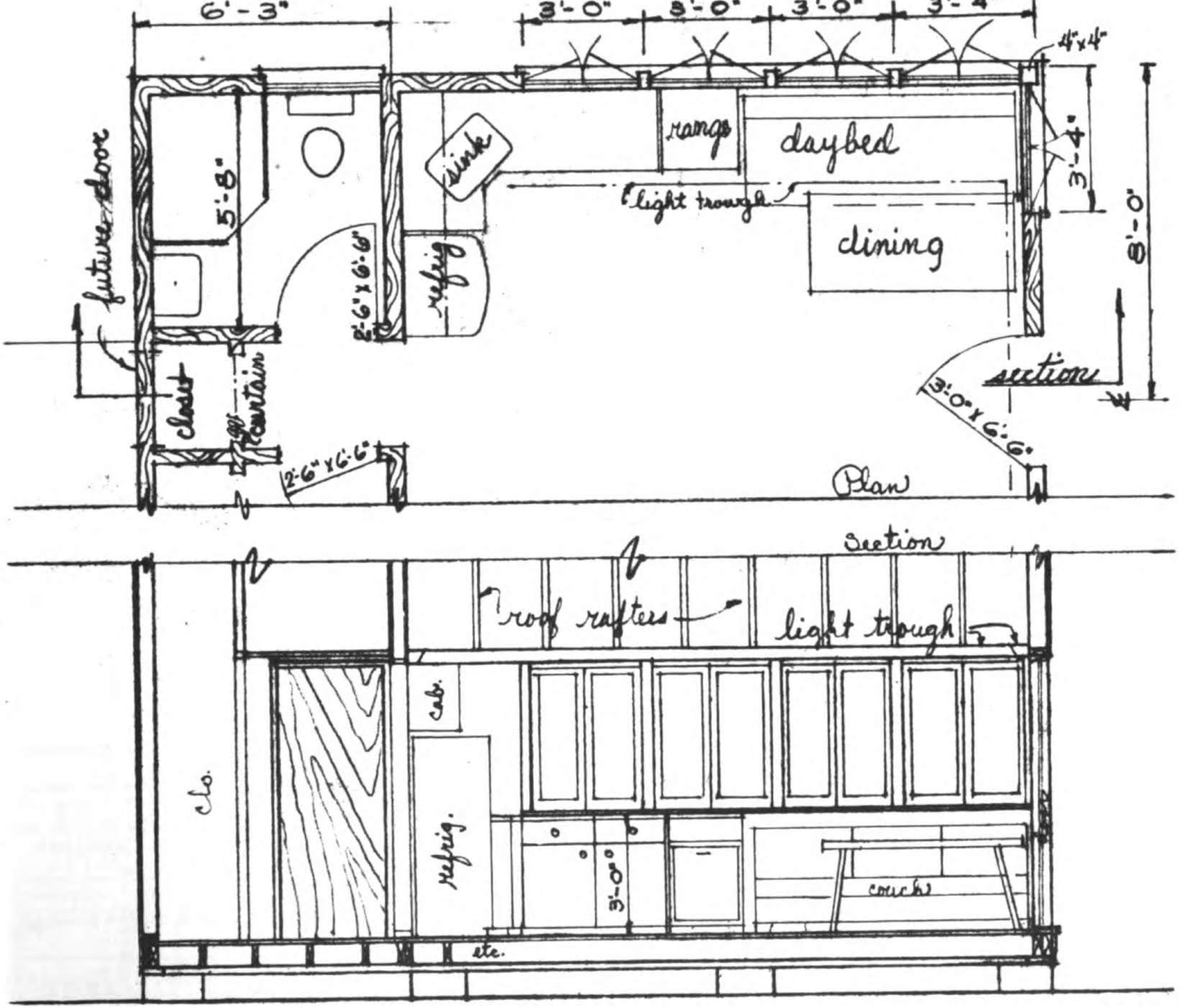
put. up walls
.A. and C. first
Isometric



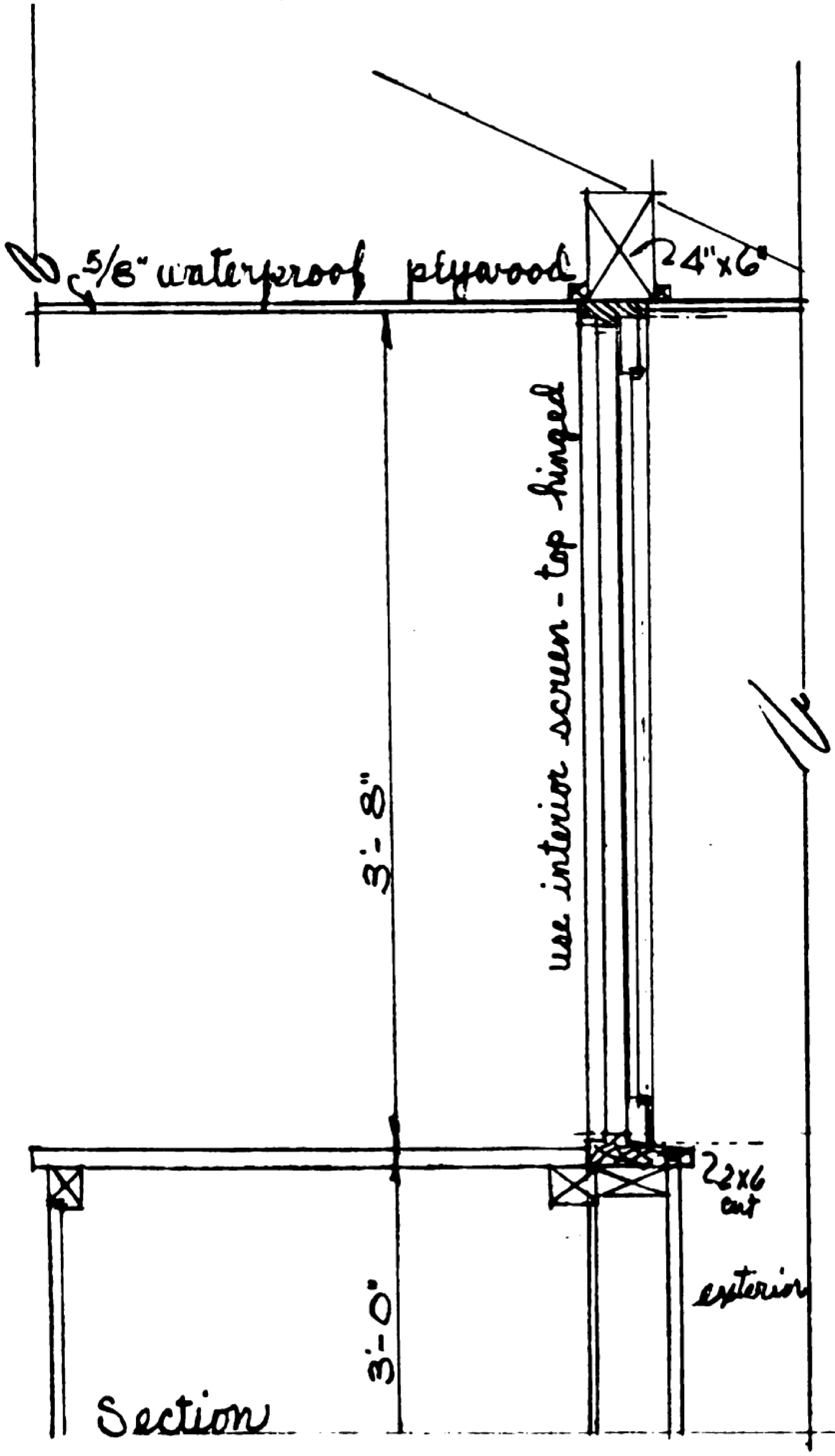
Isometric showing roof and end



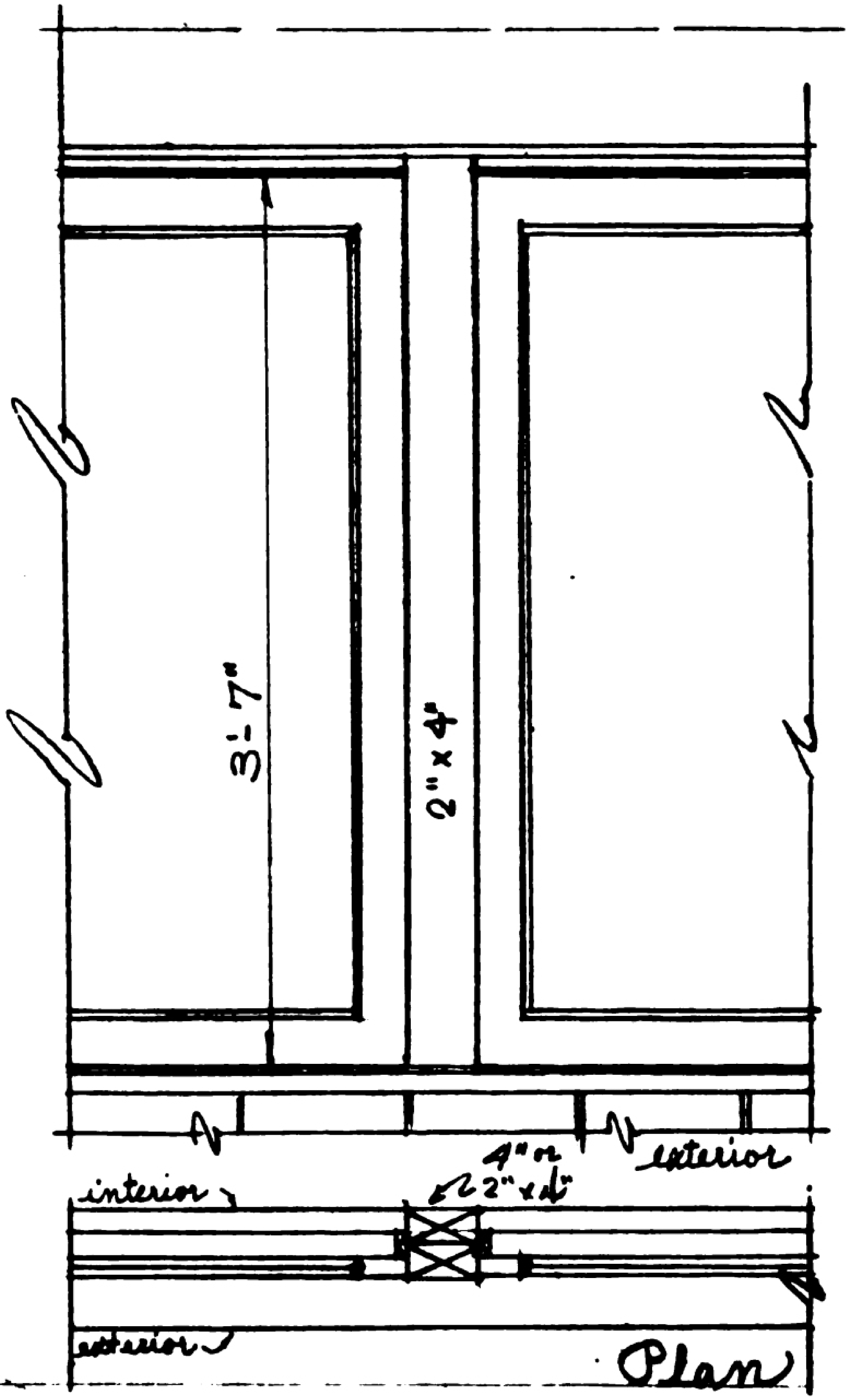
plan of roof



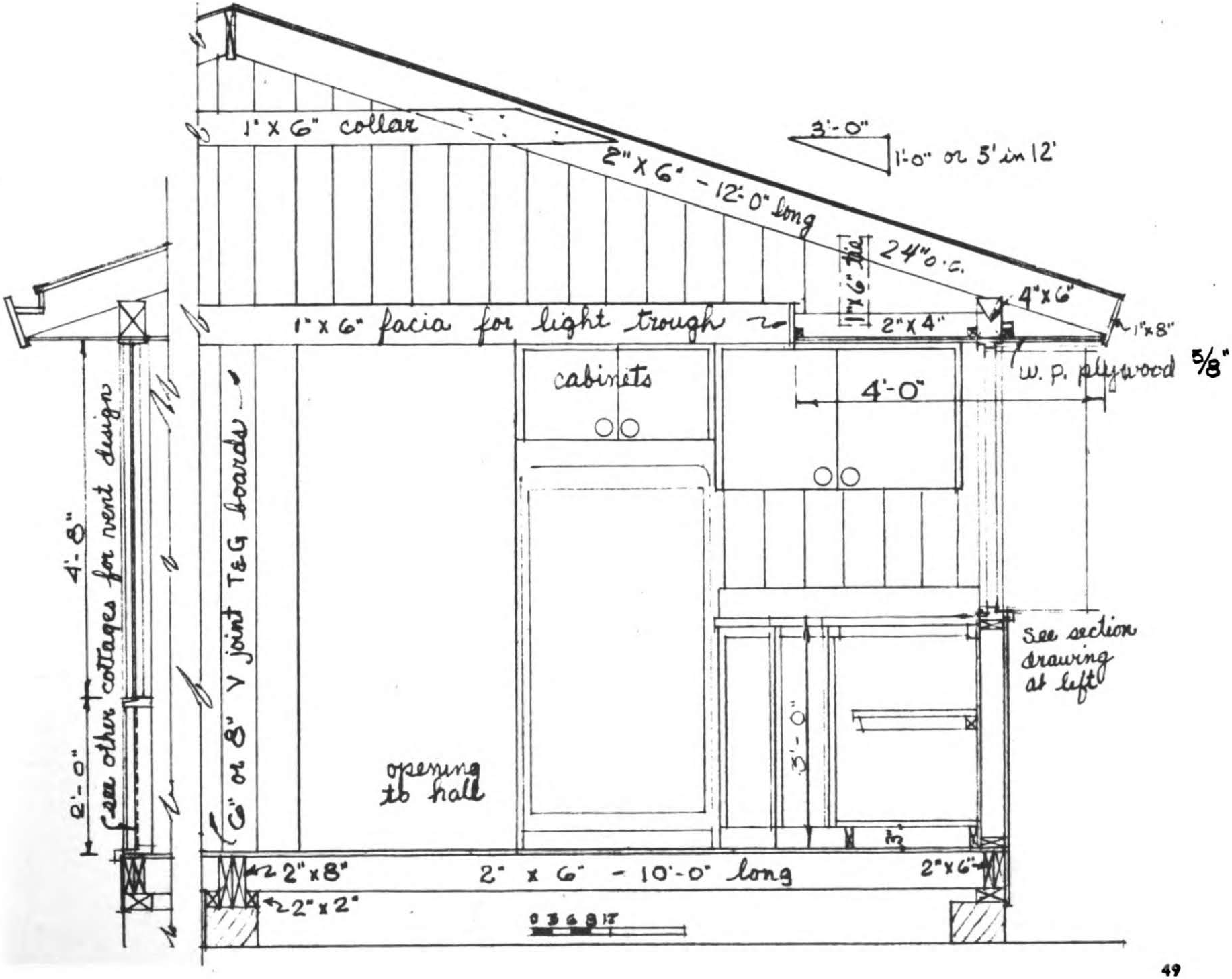
Original from UNIVERSITY OF CALIFORNIA



Section



Plan



Original from UNIVERSITY OF CALIFORNIA

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Lay out girder in center. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Spike the outer header to the inner width. Nail down flooring. Install door and window sills and lay sole around the outer edge and under partitions.

Wall Framing: Lay out wall sections A and C on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame walls B and D.

Roof: Use roll or shingle roof. Follow instructions in previous part of book.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed top, bottom, and at herringbone bridging.

Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of the book.

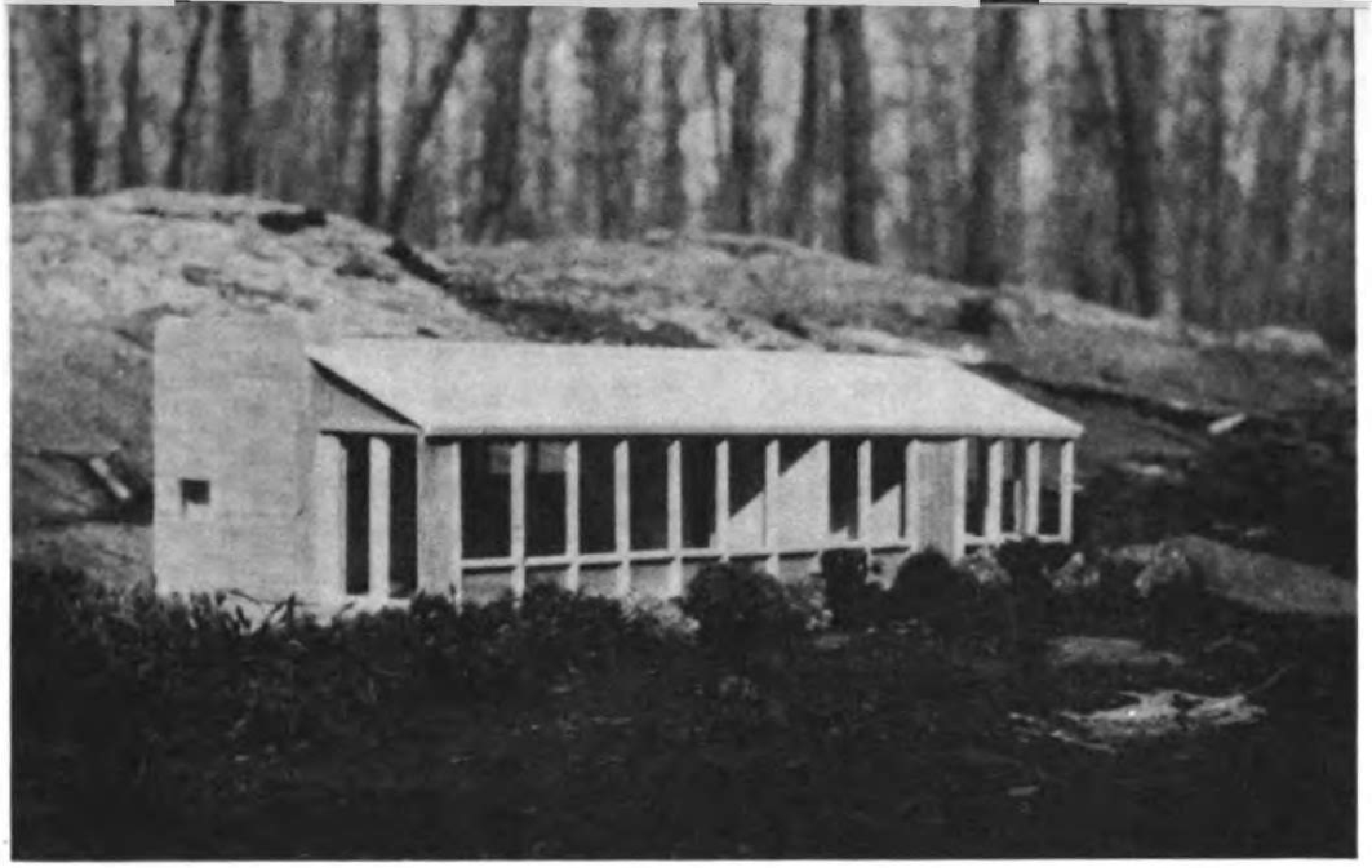
Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof rafters. Use medium thickness in side walls.

Finish interior as desired. Install mechanical and electrical equipment. Follow instructions in previous sections of this book.

MATERIALS LIST (Core Unit Only)

Concrete for footings	¾ cu. yd.
Block for piers	depends upon depth
12 anchor bolts	½ in. x 8 in.
15 2 x 4 14 ft. long	(cut for framing)
48 2 x 4 12 ft. long	framing, partition, and sole
8 2 x 4 10 ft. long	windows, sole
42 2 x 6 10 ft. long	floor joists, sill
46 2 x 6 12 ft. long	roof rafters
2 2 x 8 10 ft. long	girder
2 2 x 8 12 ft. long	girder
3 4 x 4 8 ft. long	posts, dining corner
2 4 x 4 10 ft. long	porch posts
1 4 x 6 10 ft. long	window header
2 4 x 6 12 ft. long	window header

44 ft. 2 x 2 for girder
110 ft. window bead
220 ft. 1 x 6 fascia board
580 board ft. of flooring
1,000 board ft. of roofing
750 board ft. of tongue-and-groove exterior siding (vertical)
1,100 board ft. of tongue-and-groove interior finish
528 sq. ft., plus waste, ceiling finish
1 2 ft. 10 in. x 6 ft. 8 in. exterior door, single panel, and screen
1 3 ft. x 6 ft. 8 in. exterior door
2 2 ft. 6 in. x 6 ft. 8 in. interior doors
1,100 sq. ft. medium-thick insulation
8 squares of roofing
4 sheets 4 ft. x 8 ft. x ¾ in. waterproof plywood
2 sheets 4 ft. x 8 ft. x ⅝ in. waterproof plywood for window vents
1 cellar sash (about 16 in. x 33 in.)
4 yards 36-in.-wide plastic screening
Electric wiring: 110-220 volt, 3-wire system
Plumbing: piping, pump, tank, water heater, seat, basin, shower, sink
Septic tank
Range
Refrigerator
Franklin stove (or fireplace)

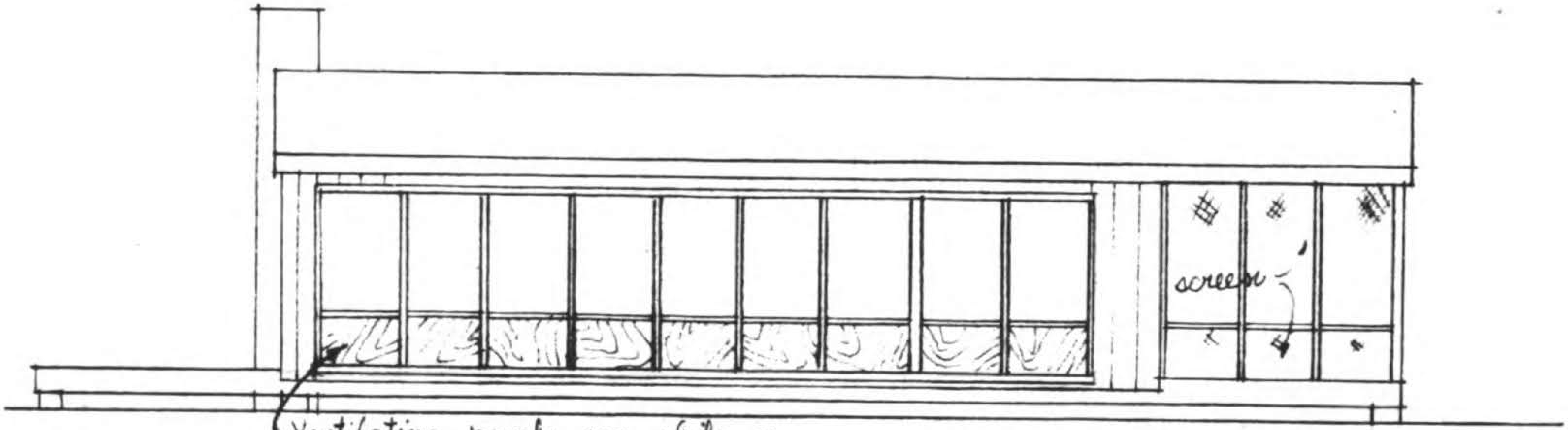


PLAN 7

A hillside would be a good place to put this cottage. Imagine an outdoor wiener roast on the open porch. Later, when the mosquitoes start biting and there is a chill in the air, you could gather around the inside fireplace for a song fest. And if the evening were warm, you could sit on your private screened porch off the bedroom. Indoor eating would be done along the glass wall opposite the kitchen area.

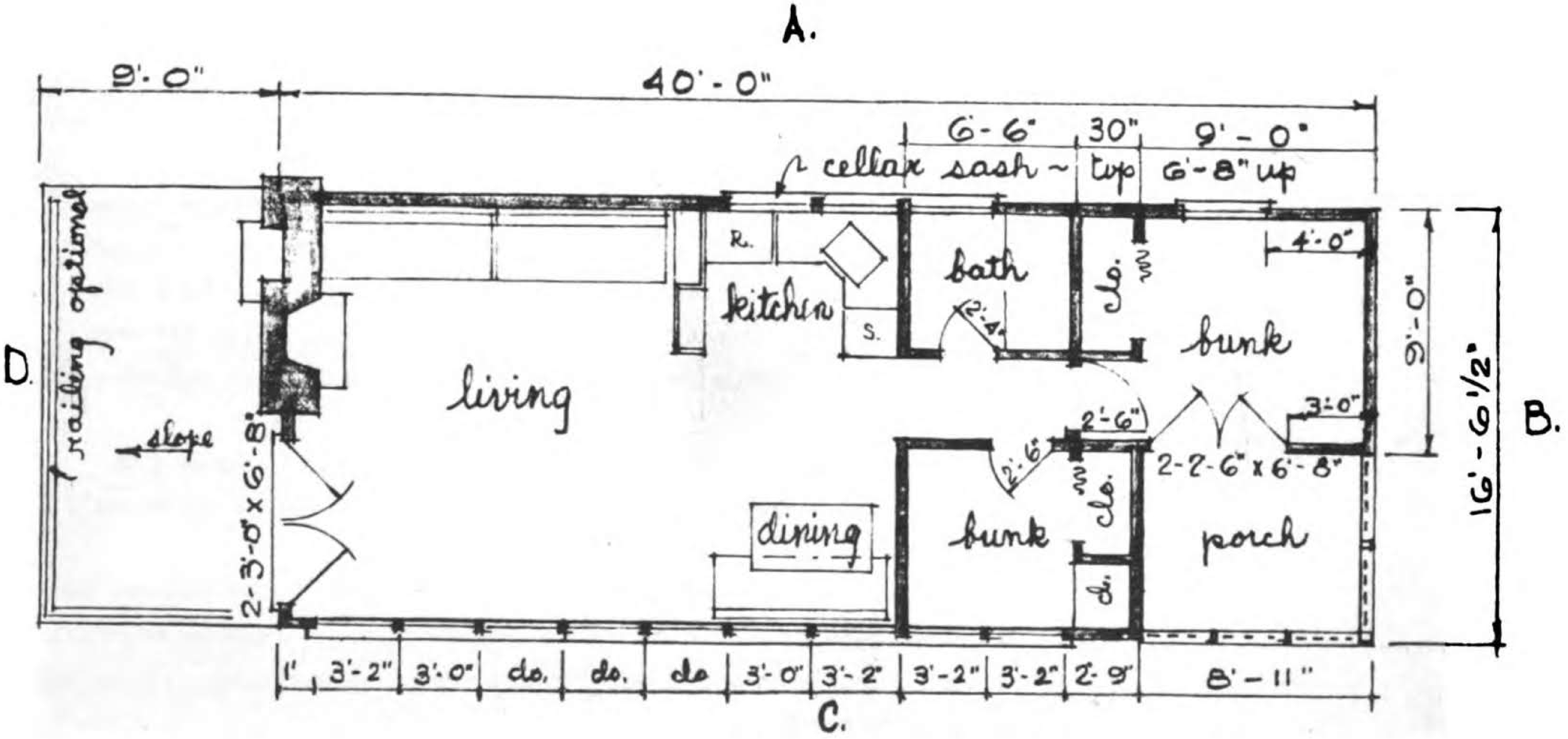
This cottage, like the second, could have a plywood exterior with horizontal batten strips. Laying the plywood in this way on the inside would also be attractive.

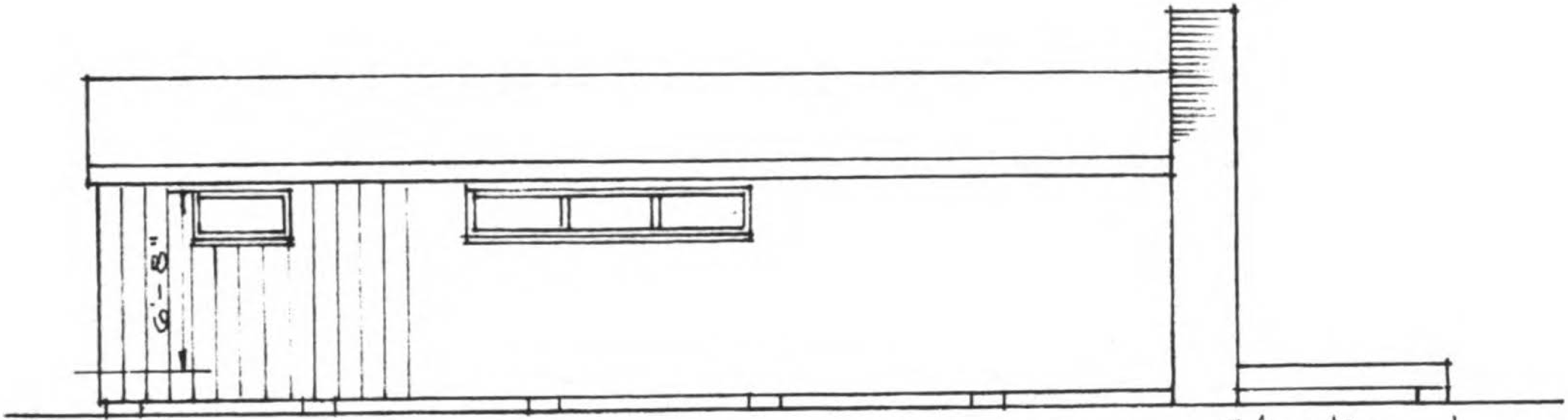
There is one fairly critical dimension in this scheme. It is the distance from the fireplace to the kitchen area. There should be enough space for two studio couches along the long solid wall. This way you can sleep as many as ten people by using the porch.



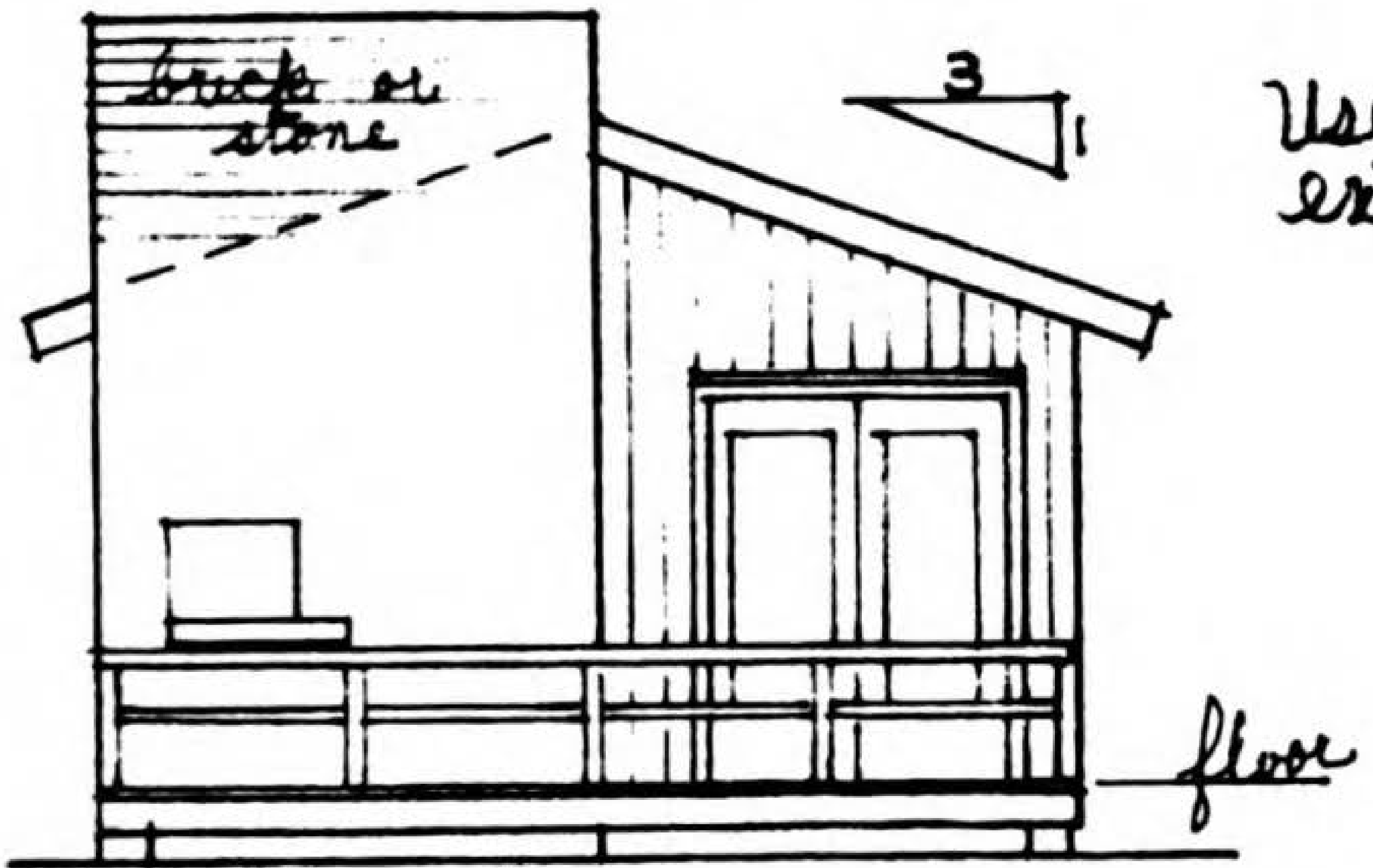
Ventilating panels can slide or be top hinged – see cottage – some panels could be fixed.

Elevation C.





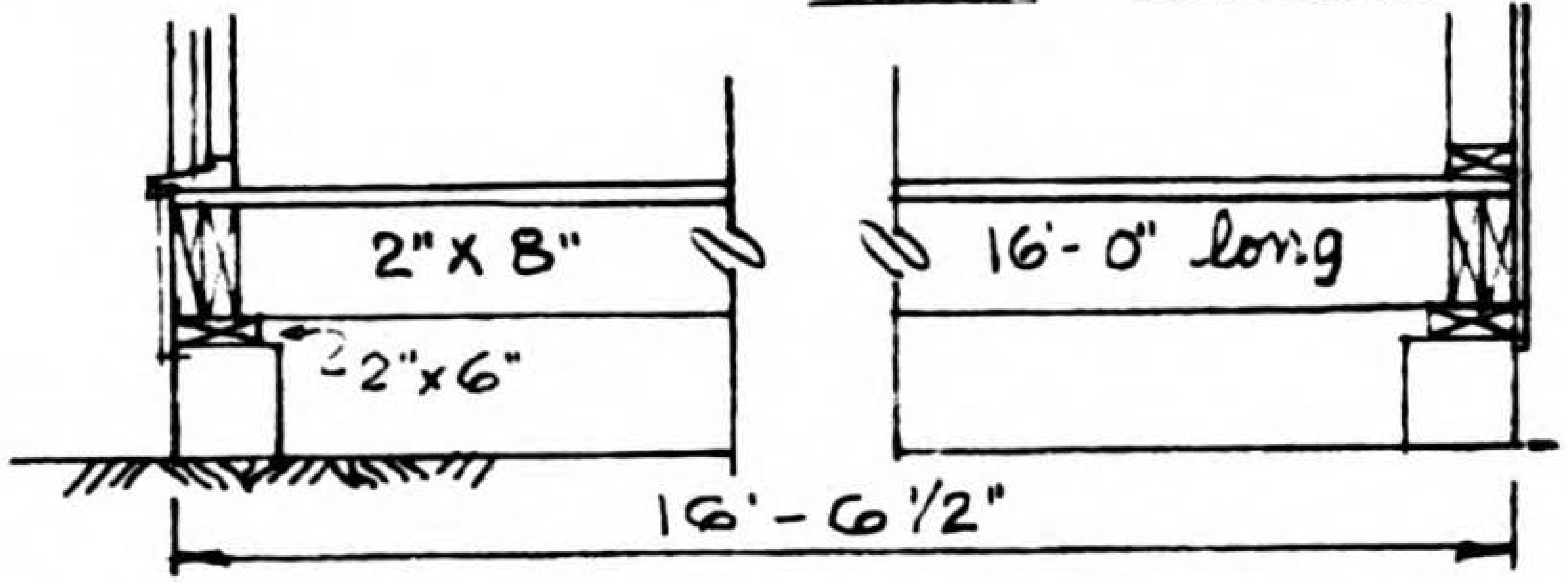
Elevation A.



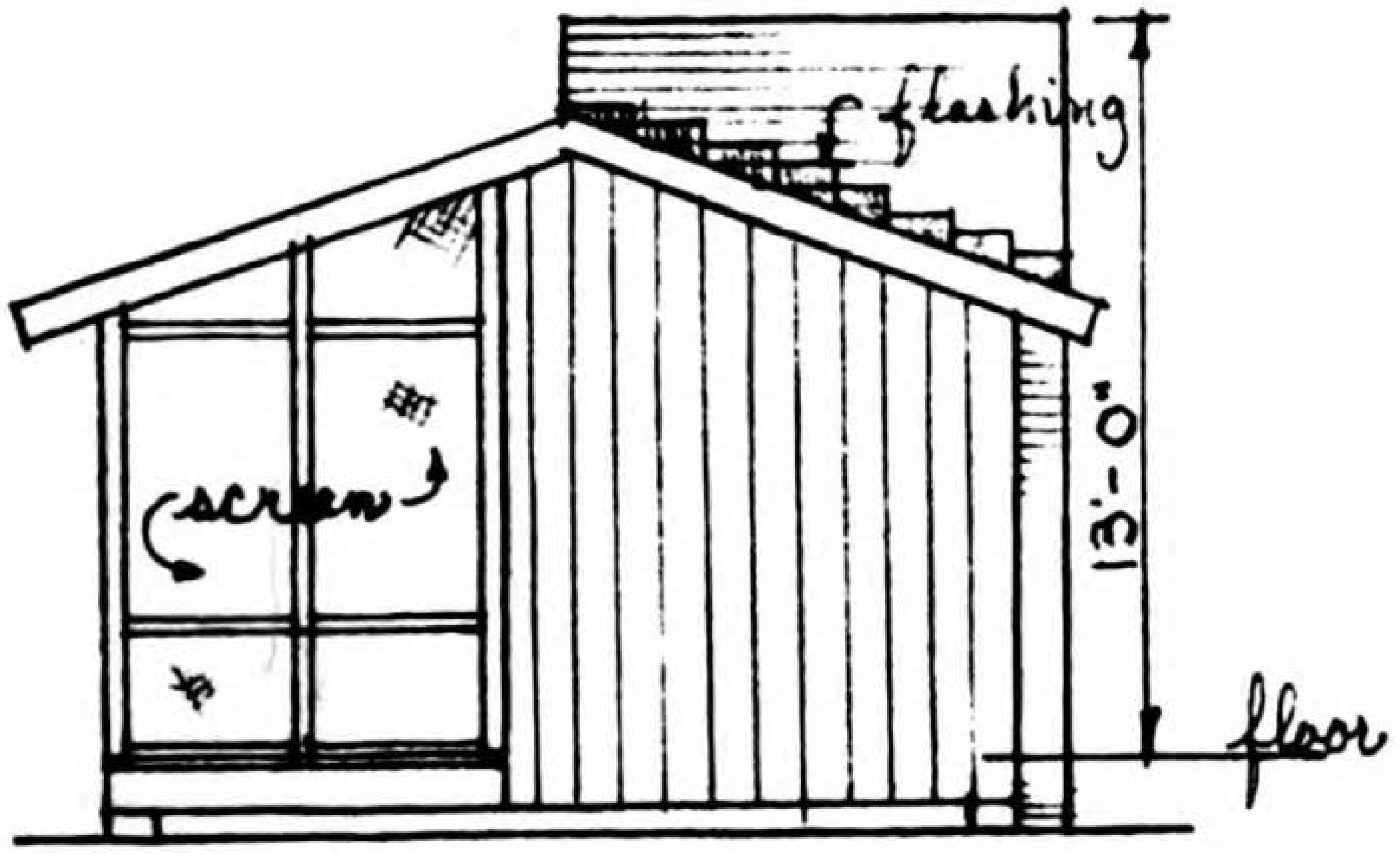
Elevation D.

Use vertical or horizontal siding for exterior finish

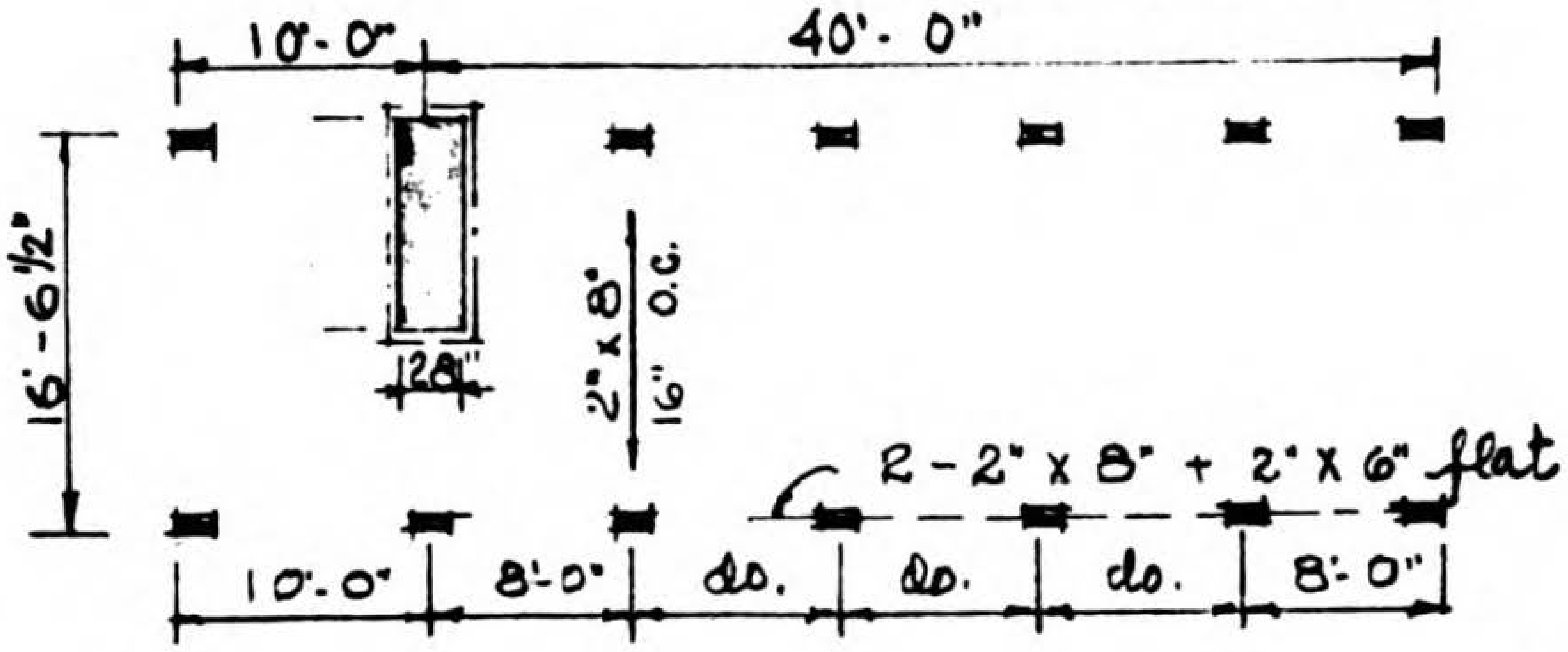
Floor section

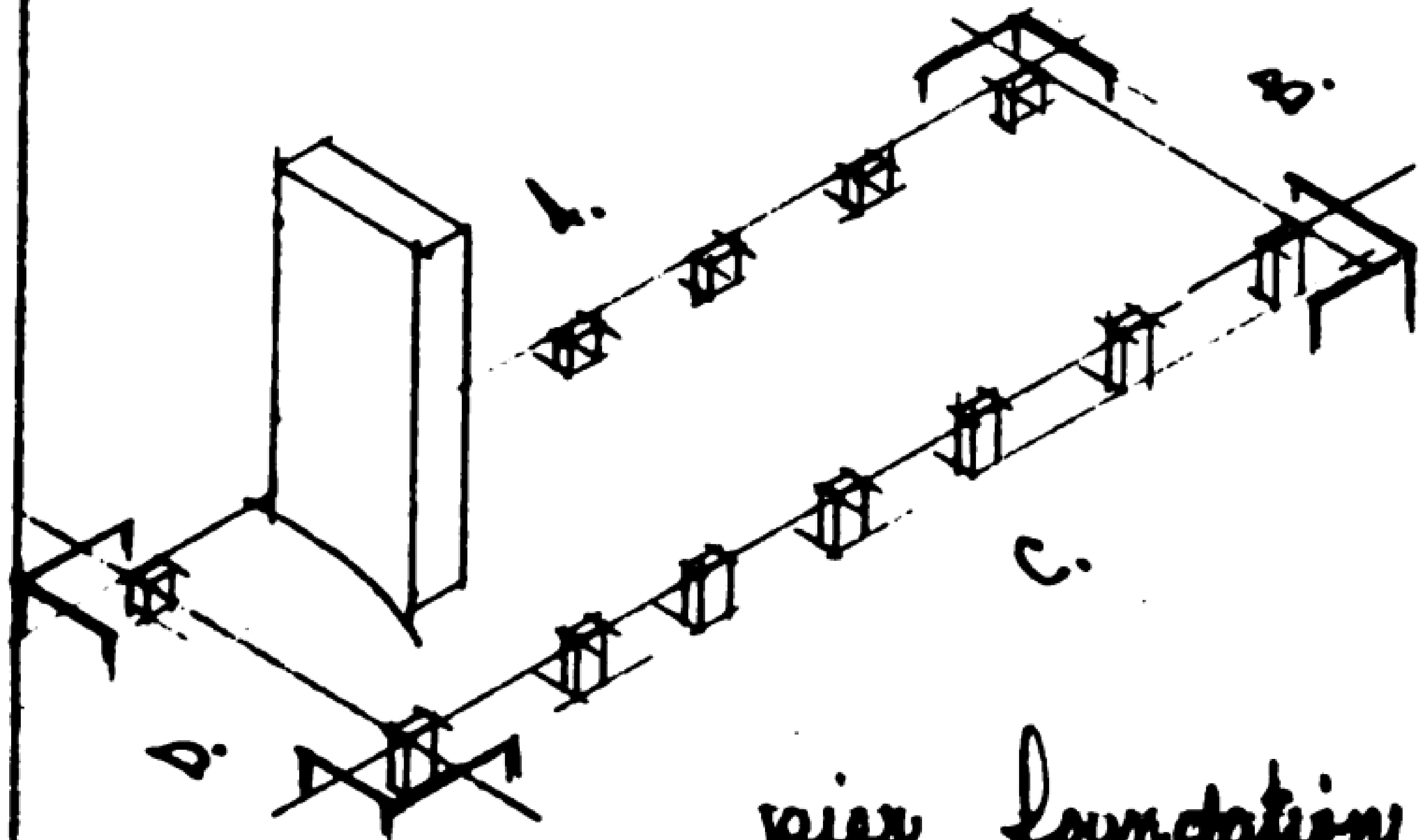


Elevation B.

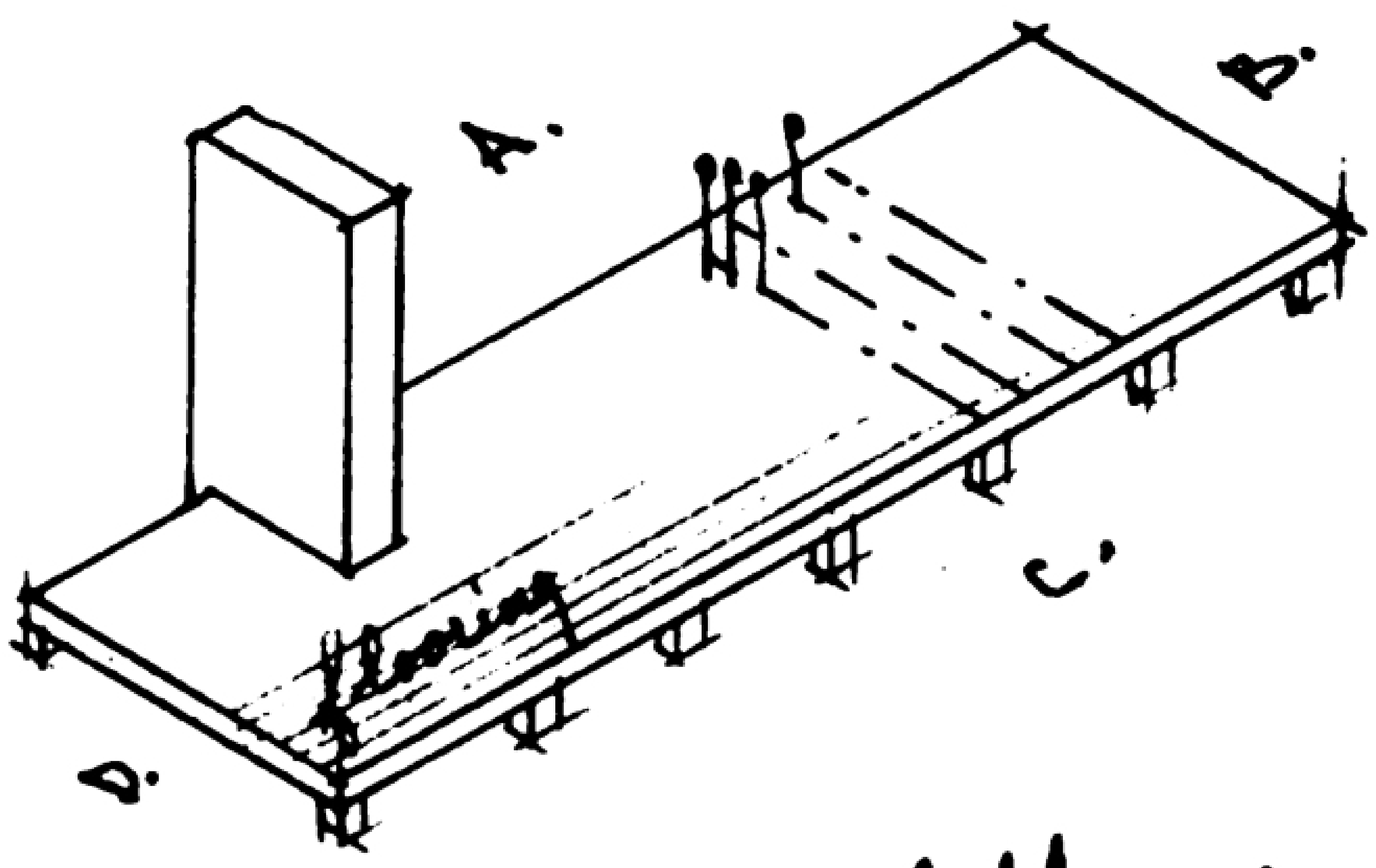


Foundation

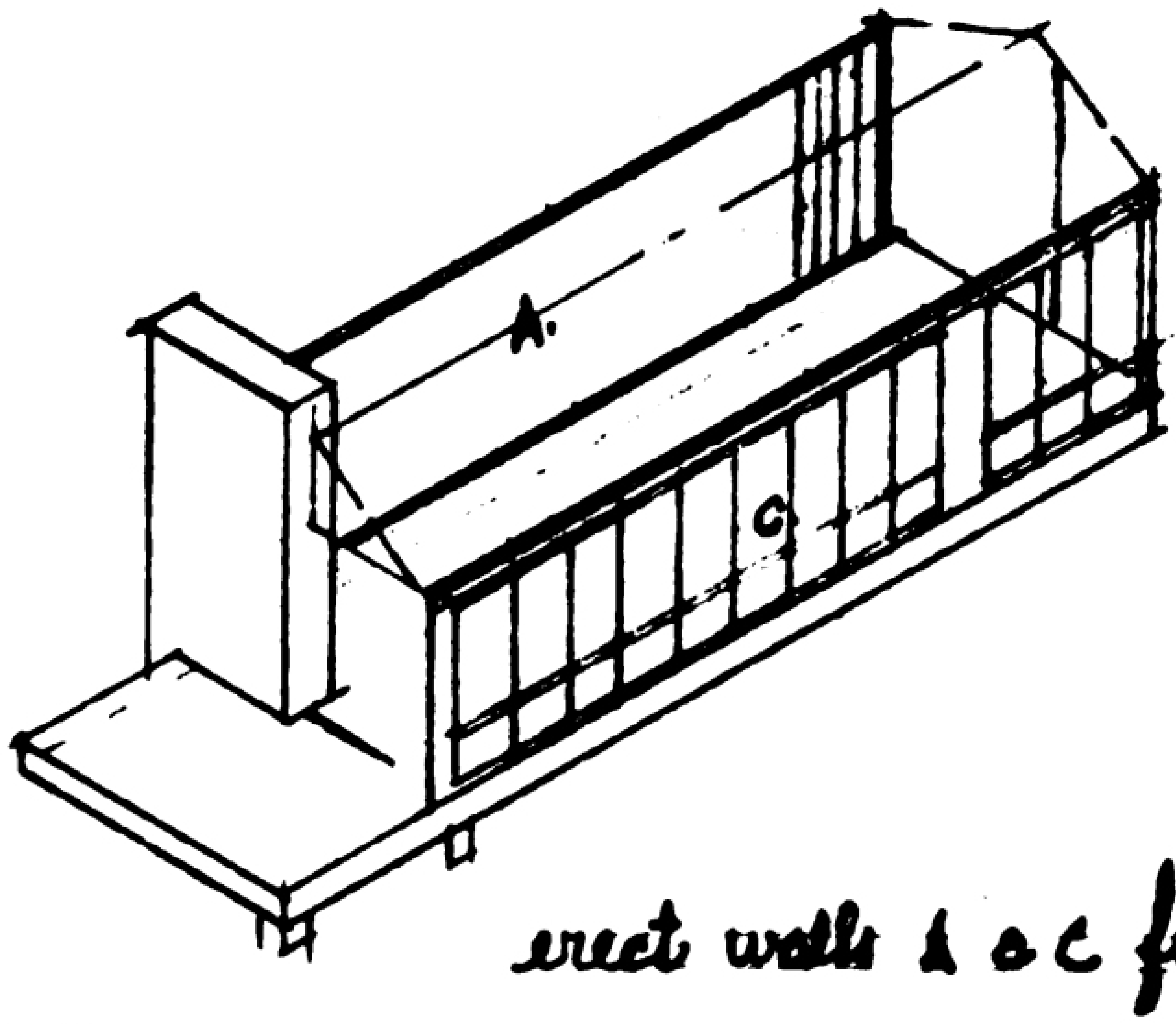




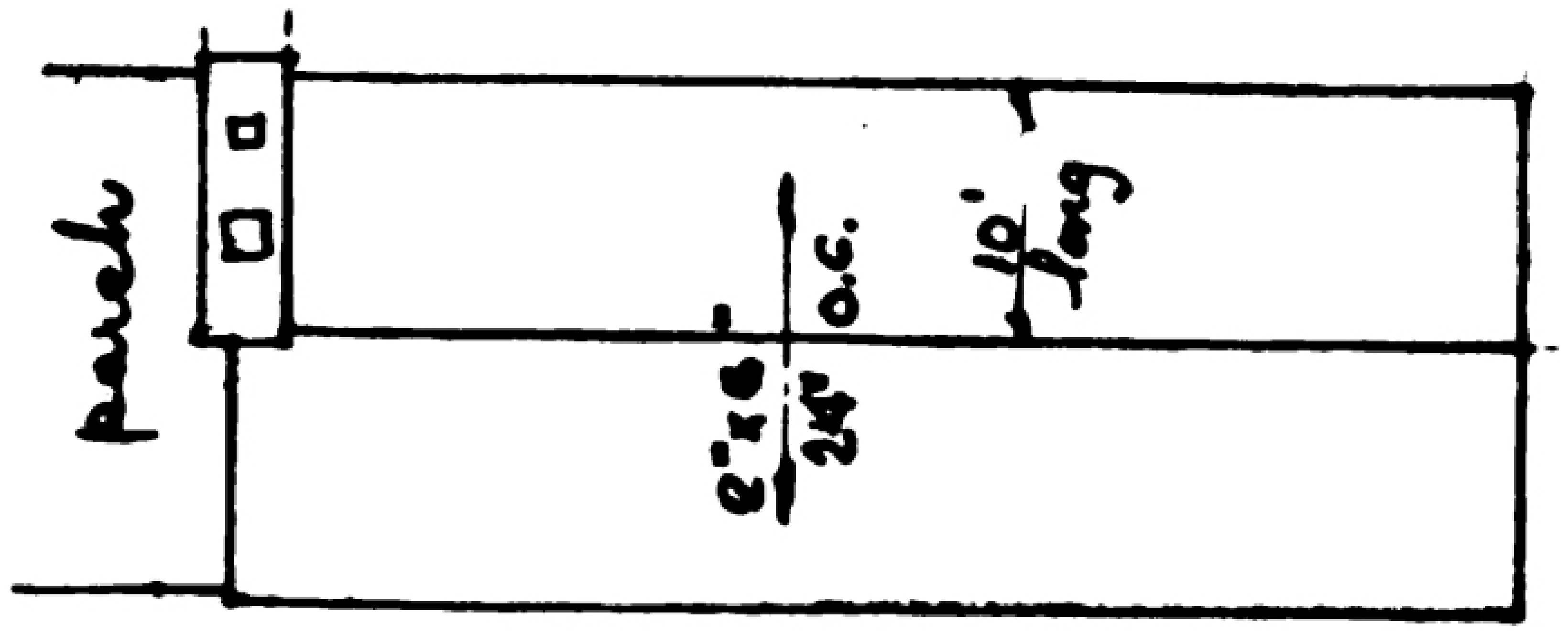
pier foundation



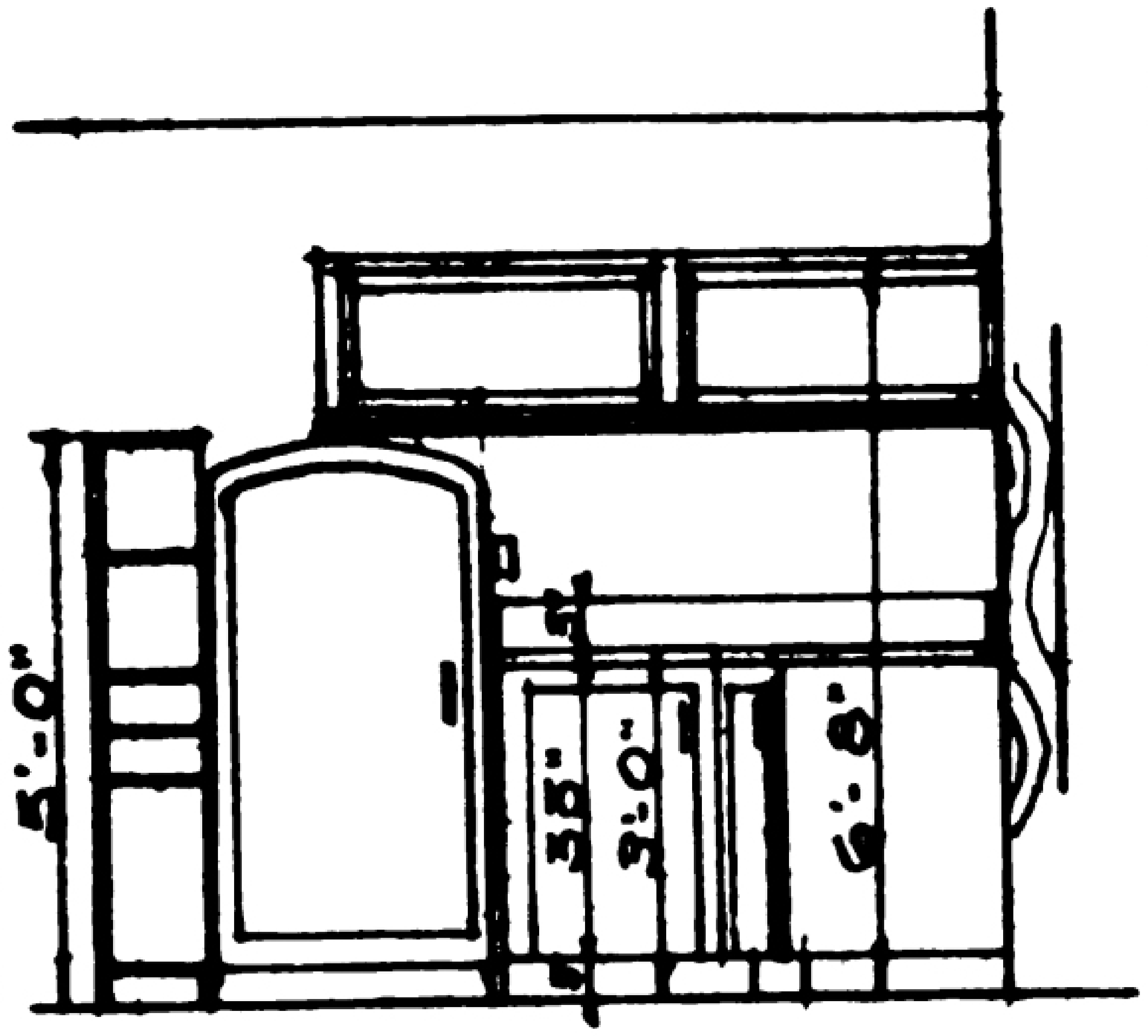
platform



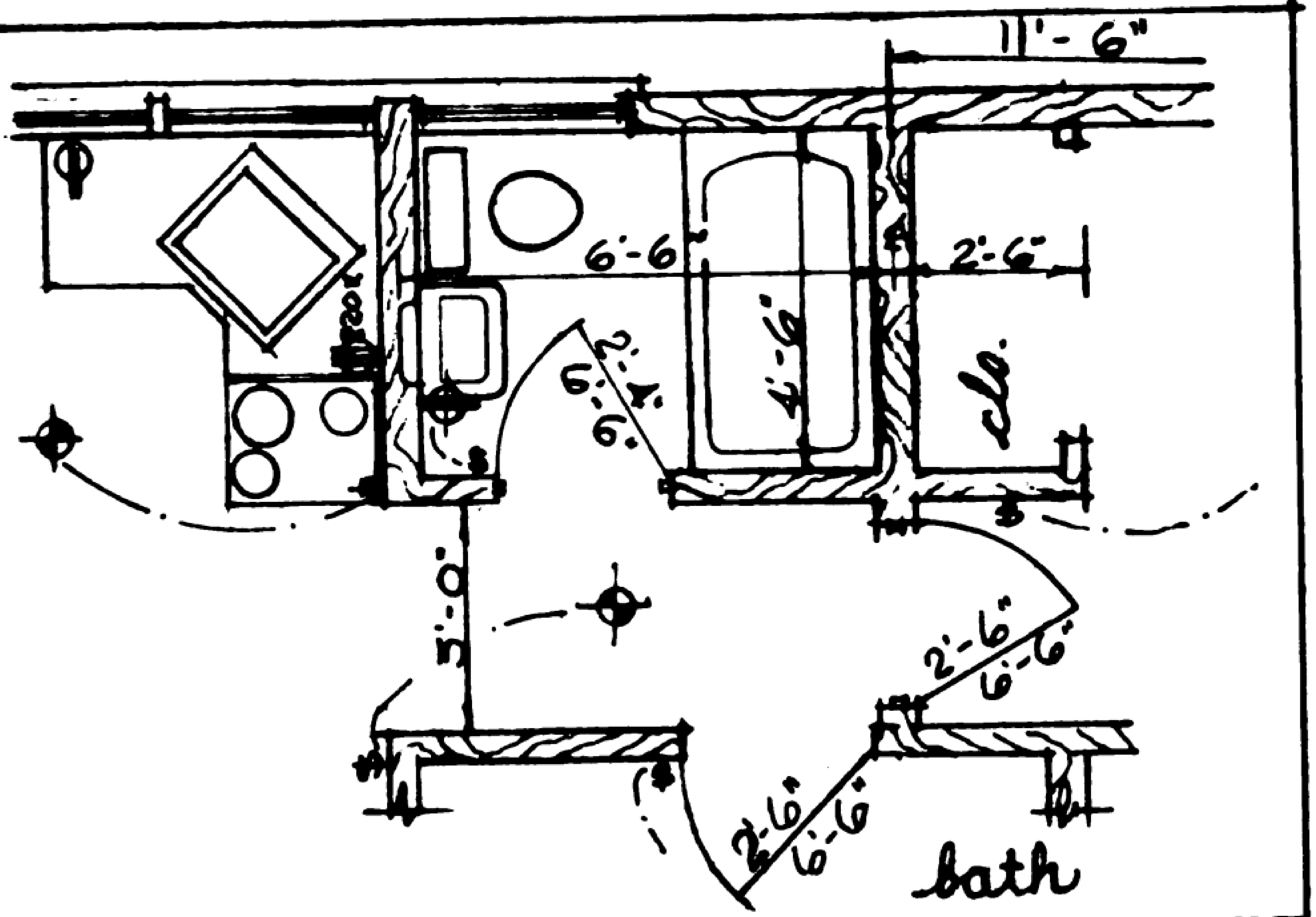
erect walls & a c first



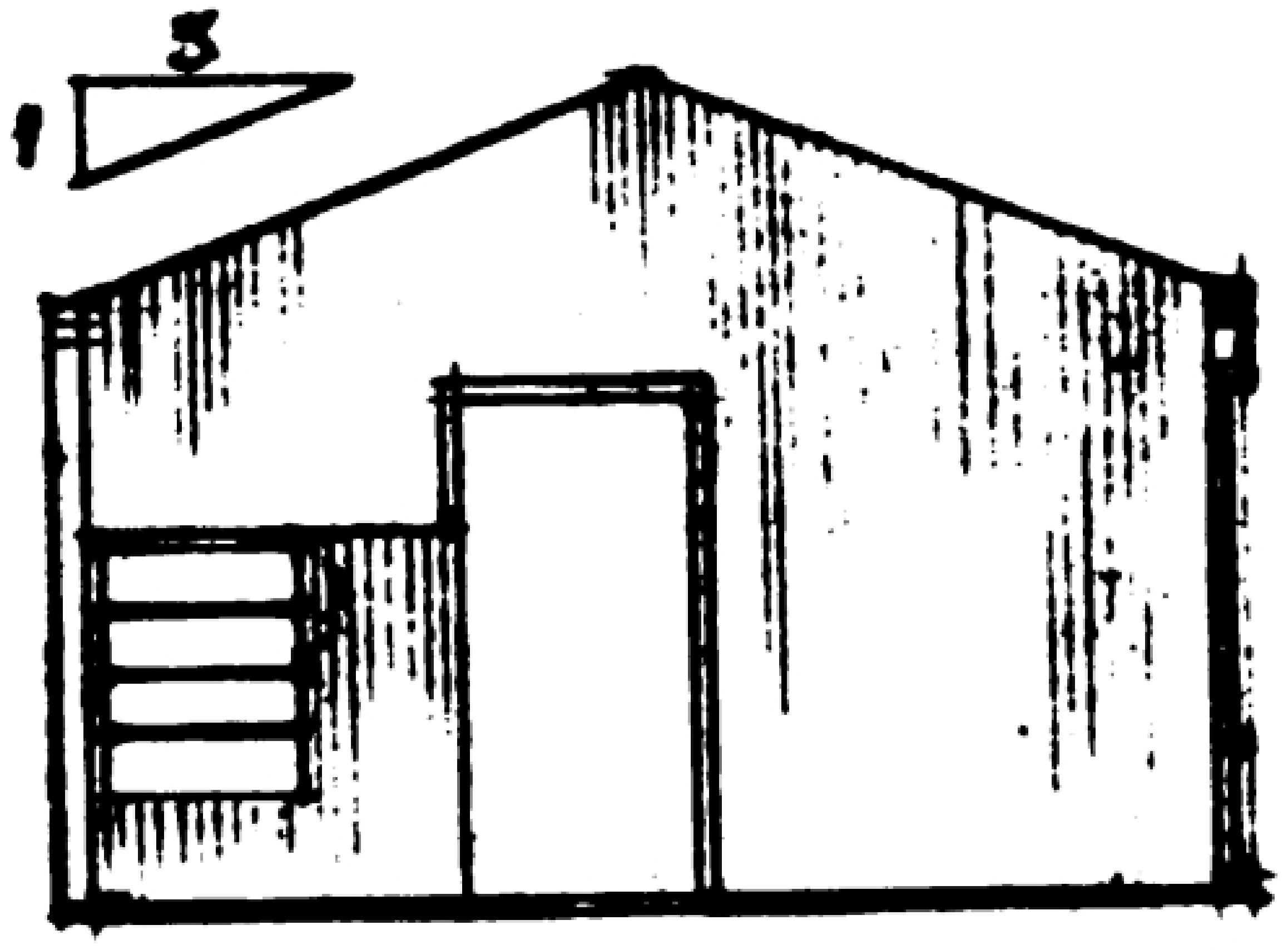
roof outline



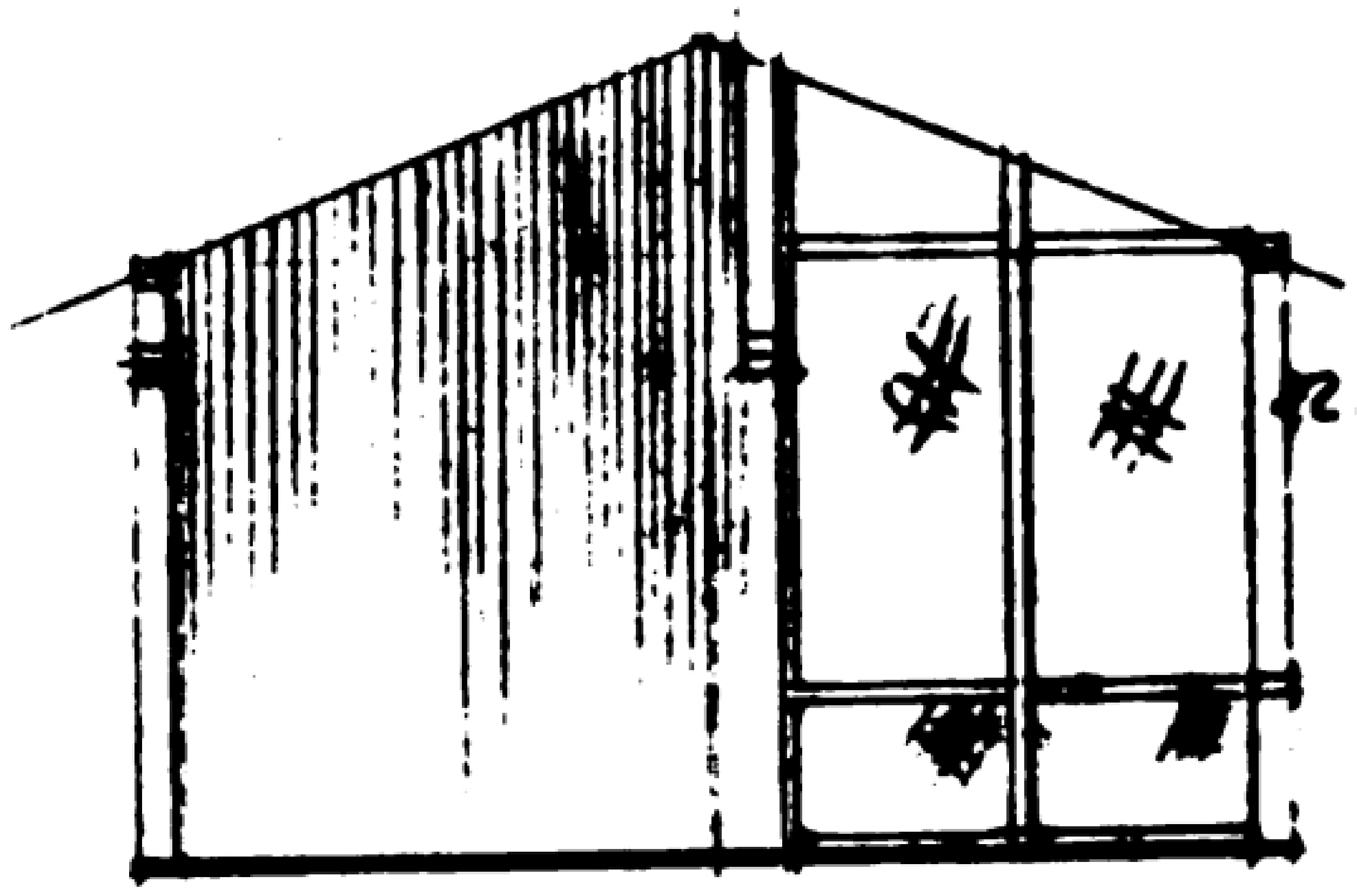
Elevation - kitchen



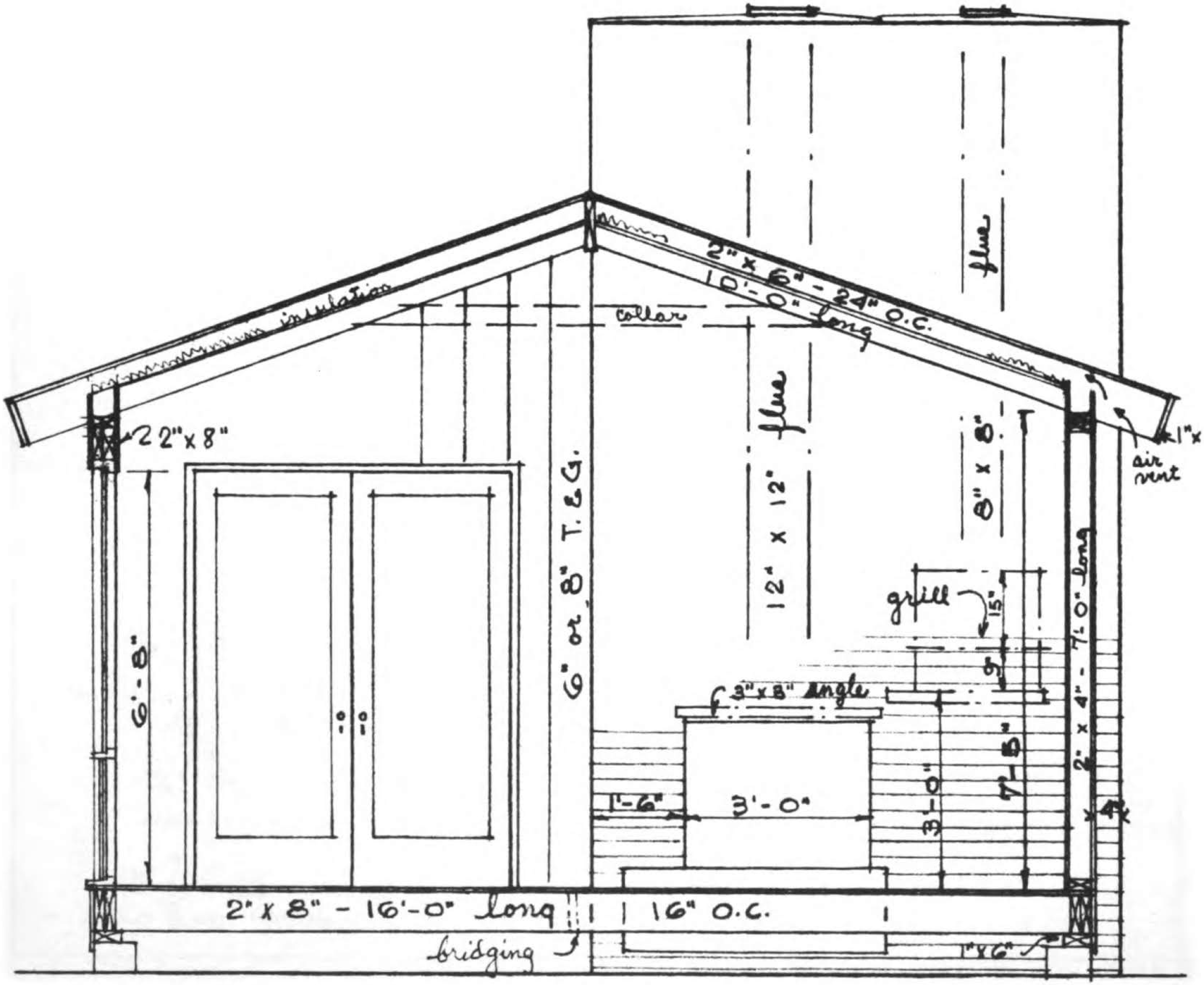
bath

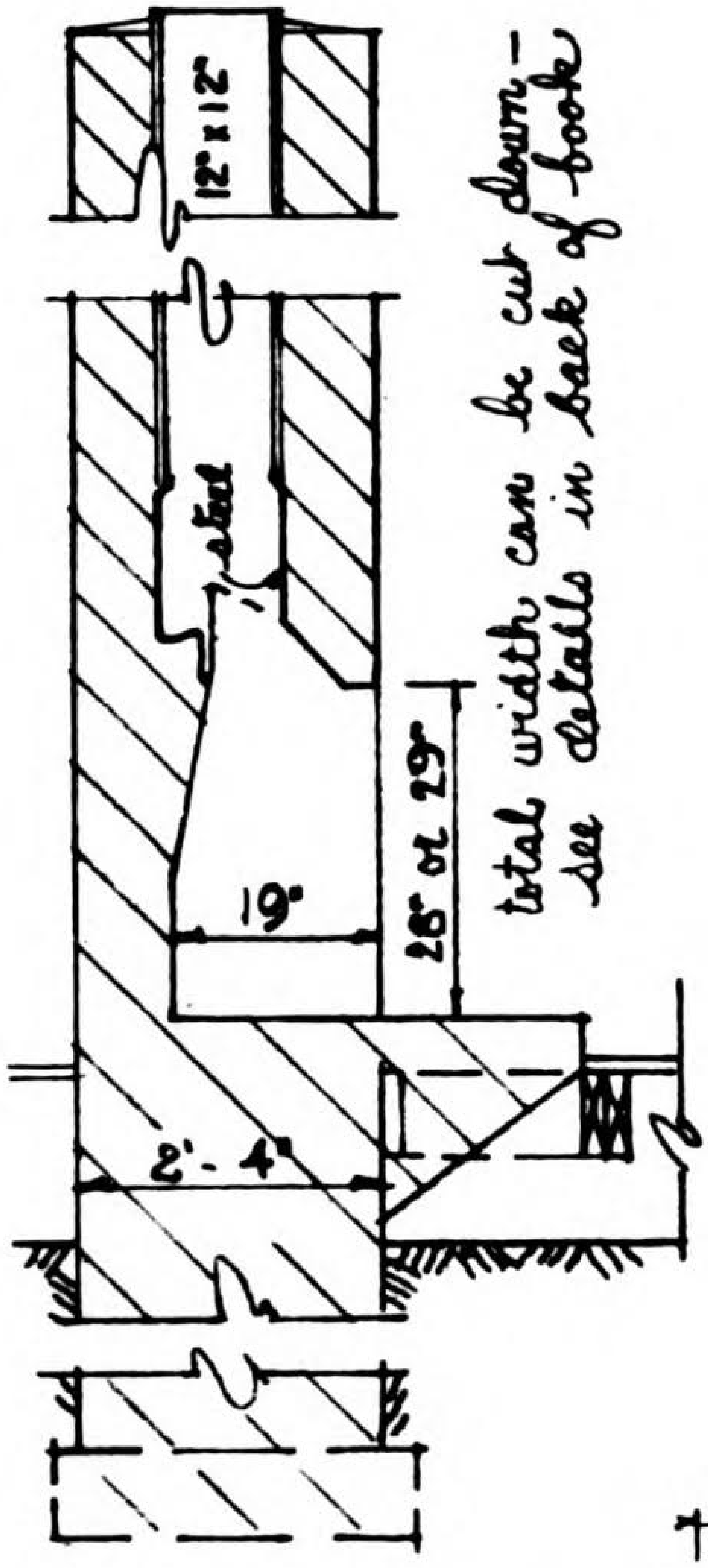


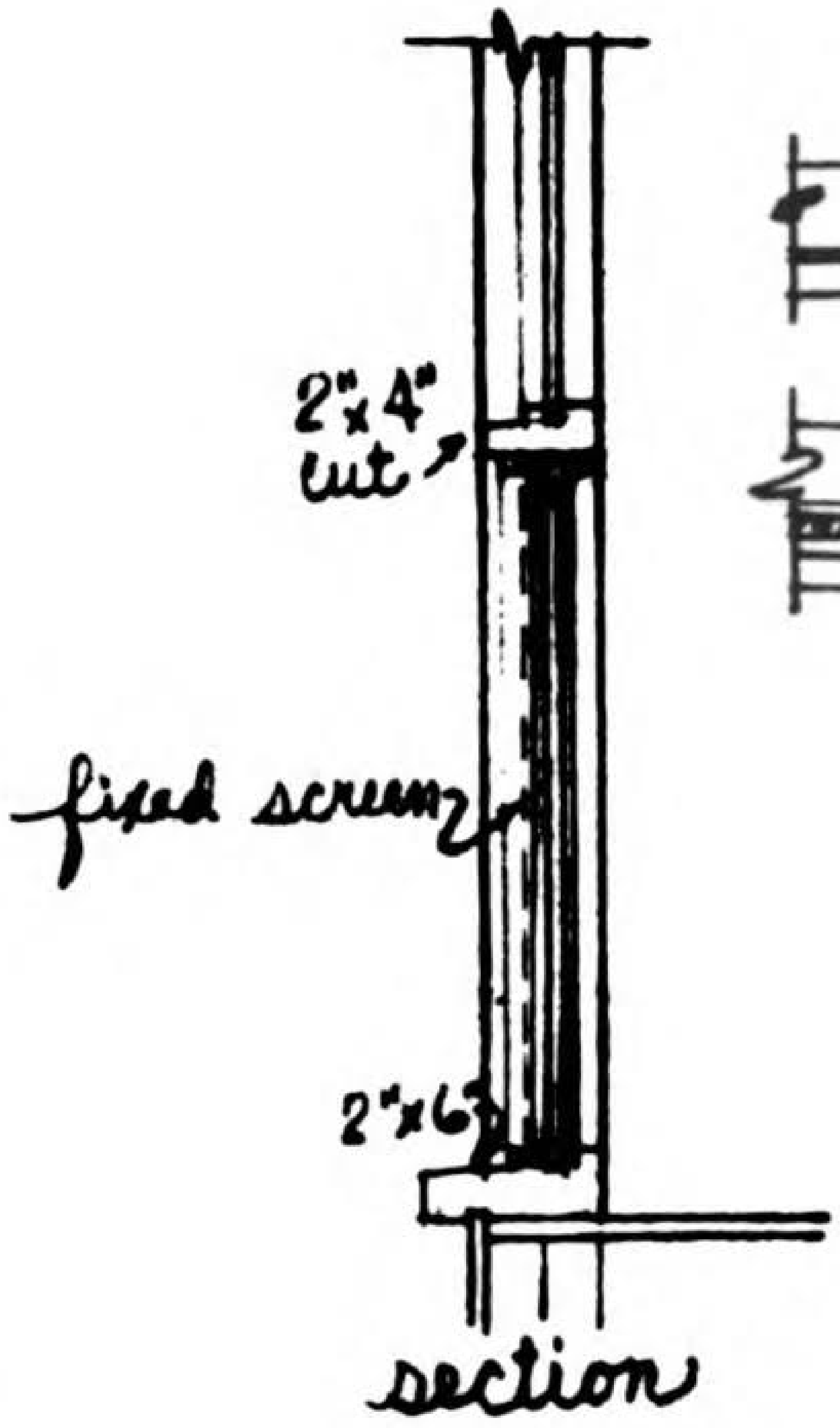
kitchen end of living area



section thru end bedroom and porch

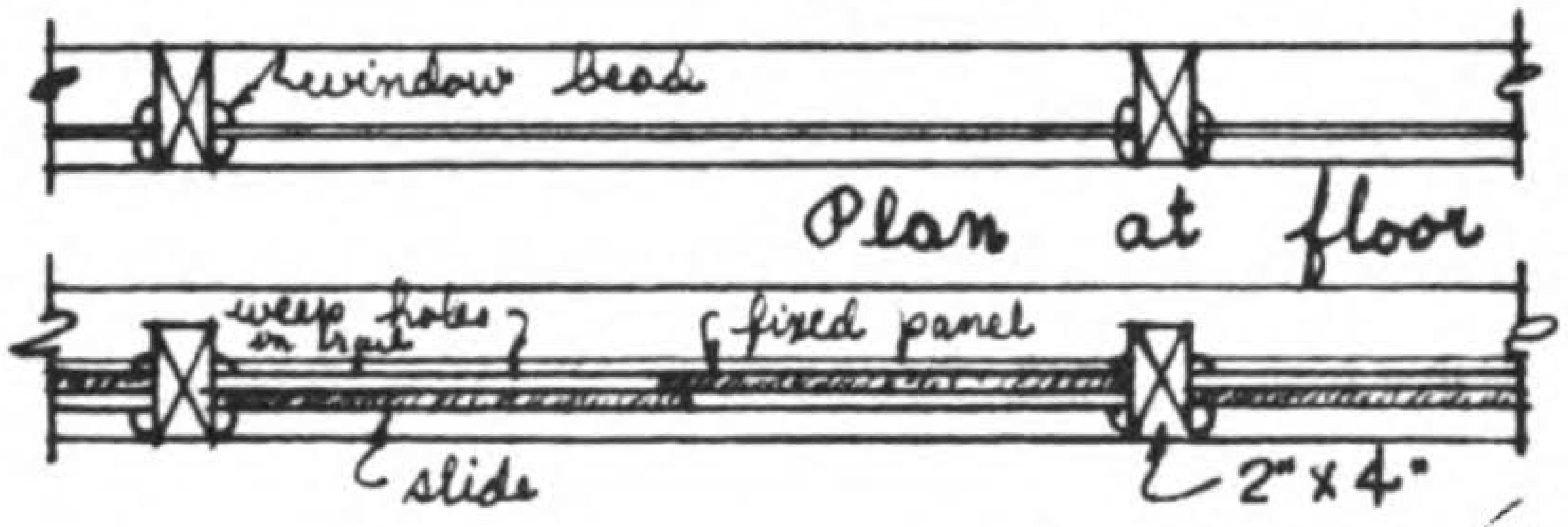

insulation
2 2"x 8"
6'-8"
6" or 8" T. & G.
collar
2" x 6" - 24" O.C.
10'-0" long
flue
12" x 12" flue
8" x 8"
1"x 6"
air vent
grill
15"
9"
3"x 8" angle
1'-6"
3'-0"
3'-0"
7'-8"
2" x 4" - 7'-0" long
x 4"
2" x 8" - 16'-0" long
16" O.C.
bridging
1"x6"





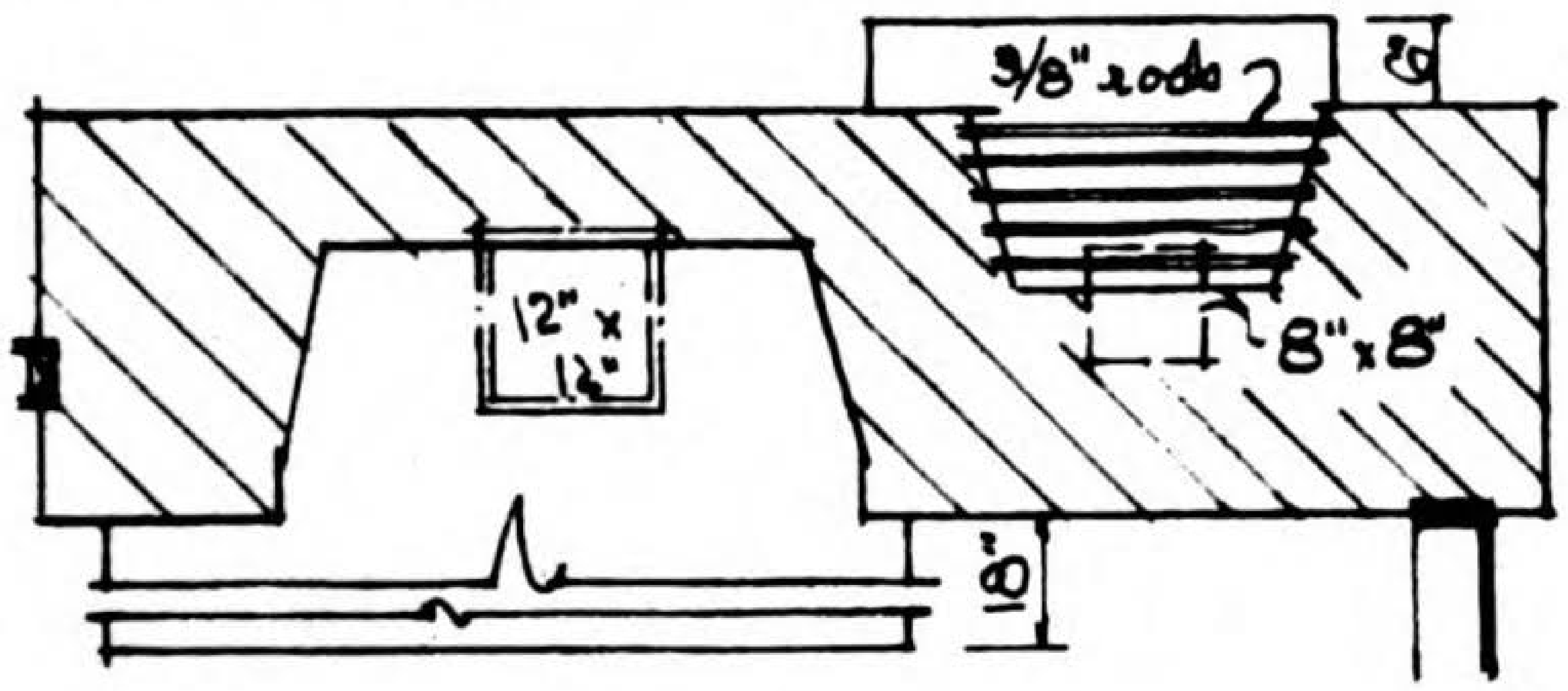
section

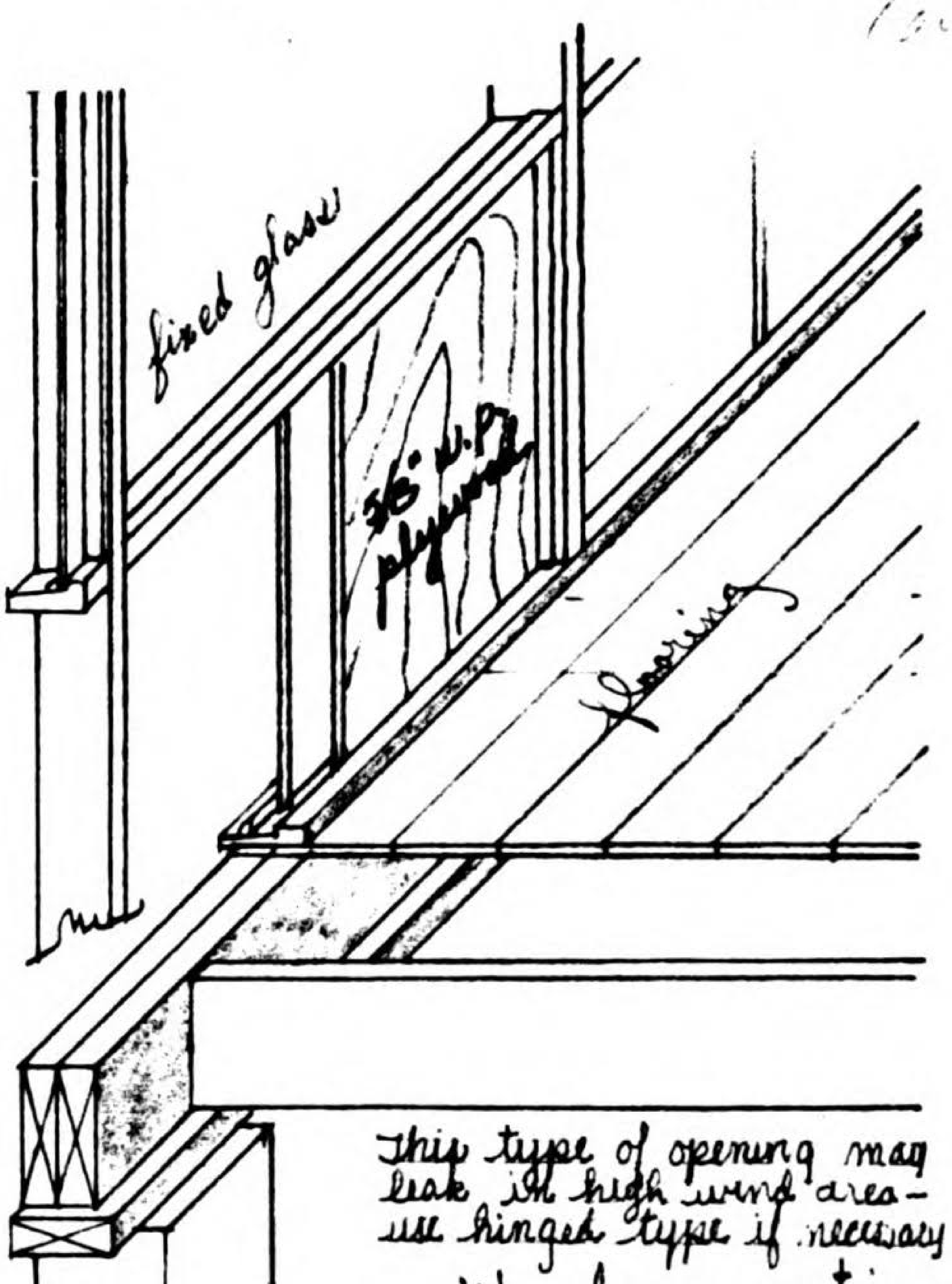
Plan at rail



Plan at floor

Fireplace





This type of opening may leak in high wind areas - use hinged type if necessary

Window section

Original from UNIVERSITY OF CALIFORNIA

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill. Fireplace foundation built of stone and poured concrete.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Spike outer header to inner width. Nail down flooring. Install door and vent sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out wall sections A and C on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame end walls. Build fireplace up to roof line.

Roof: Place roof rafters in place and lay roofing boards. Use collars as required. Use roll or shingle roofing. Follow instructions in previous part of this book.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed to top, bottom, and to herringbone bracing.

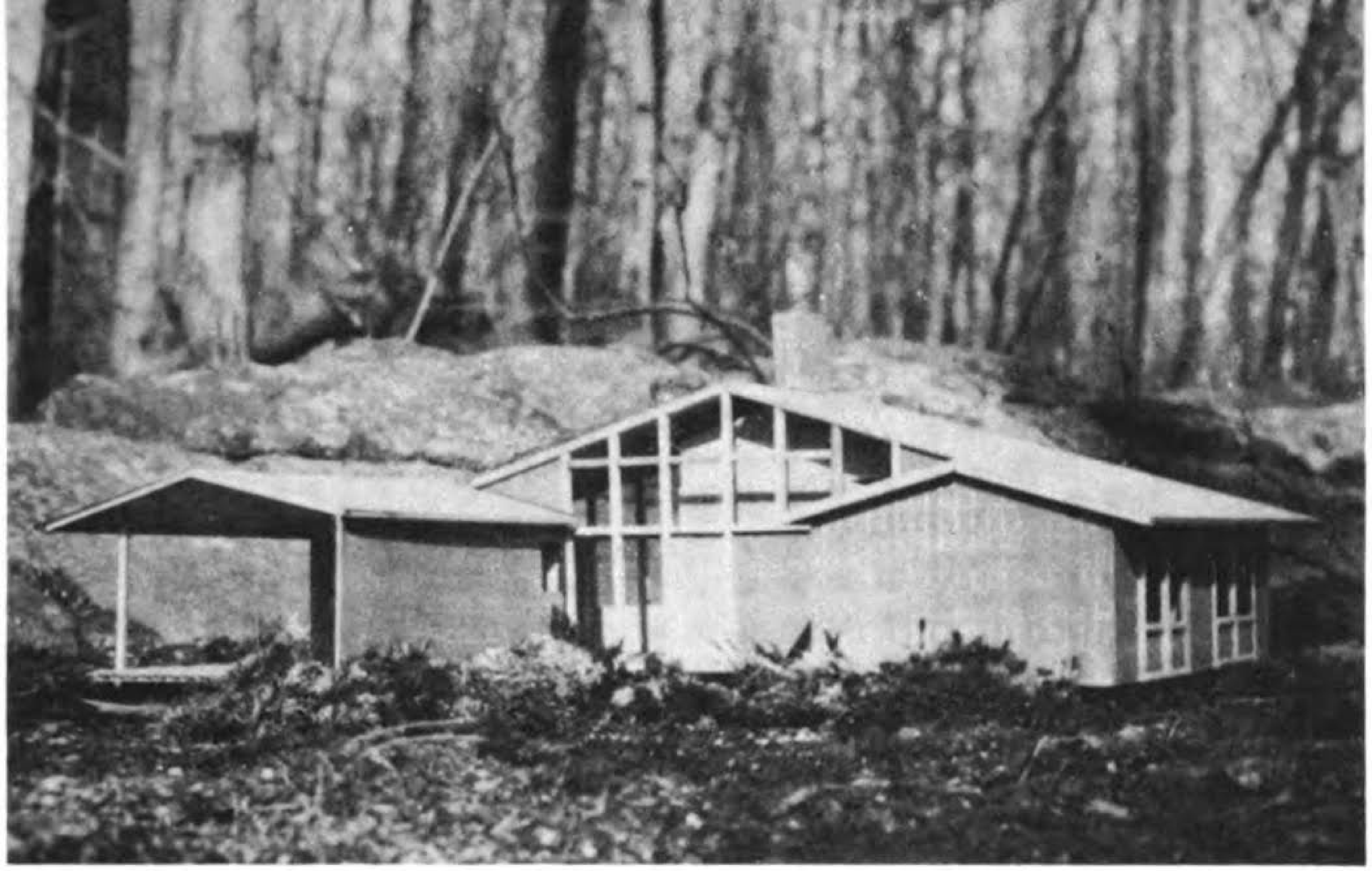
Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of this book.

Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof rafters. Use medium thickness in side walls.

Finish interior as desired. Install mechanical and electrical equipment as needed.

MATERIALS LIST (Exclusive of Porch Platform)

Concrete for footings	2 cu. yd.
Blocks for piers	depends upon depth
13 anchor bolts	½ in. x 8 in.
3,500 brick for fireplace	
5 12 x 12 terra cotta flue	
4 8 x 8 terra cotta flue	
72 2 x 4 10 ft. long	end walls, soles, partitions, headers
30 2 x 4 14 ft. long	walls, windows
44 2 x 6 10 ft. long	roof rafters
3 2 x 6 12 ft. long	window and door sills
5 2 x 6 16 ft. long	sill
44 2 x 8 16 ft. long	floor joists
124 lineal ft. of fascia board 1 x 6	
560 lineal ft. of window bead	
80 lineal ft. of doorstop	
1,000 board ft. of flooring	
1,100 board ft. of roofing	
675 board ft. of siding	
1,000 board ft. of interior finish	
780 sq. ft. of ceiling material (plus waste)	
1,200 sq. ft. of medium-thick insulation	
1 pair 3 ft. x 6 ft. 8 in. exterior doors and screen doors	
1 pair 2 ft. 6 in. x 6 ft. 8 in. exterior doors	
2 2 ft. 6 in. x 6 ft. 6 in. interior doors	
1 2 ft. 4 in. x 6 ft. 6 in. interior door	
4 cellar sash, about 16 in. x 33 in.	
2,400 sq. ft. of roof covering (3-ply) and mastic (or shingle, with increase in pitch)	
4 sheets of 4 ft. x 8 ft. x ⅝ or ¾ in. waterproof plywood	
Electric wiring	
Plumbing: piping, pump, tank, water heater, seat, basin, tub, sink	
Septic tank	
Range	
Refrigerator	



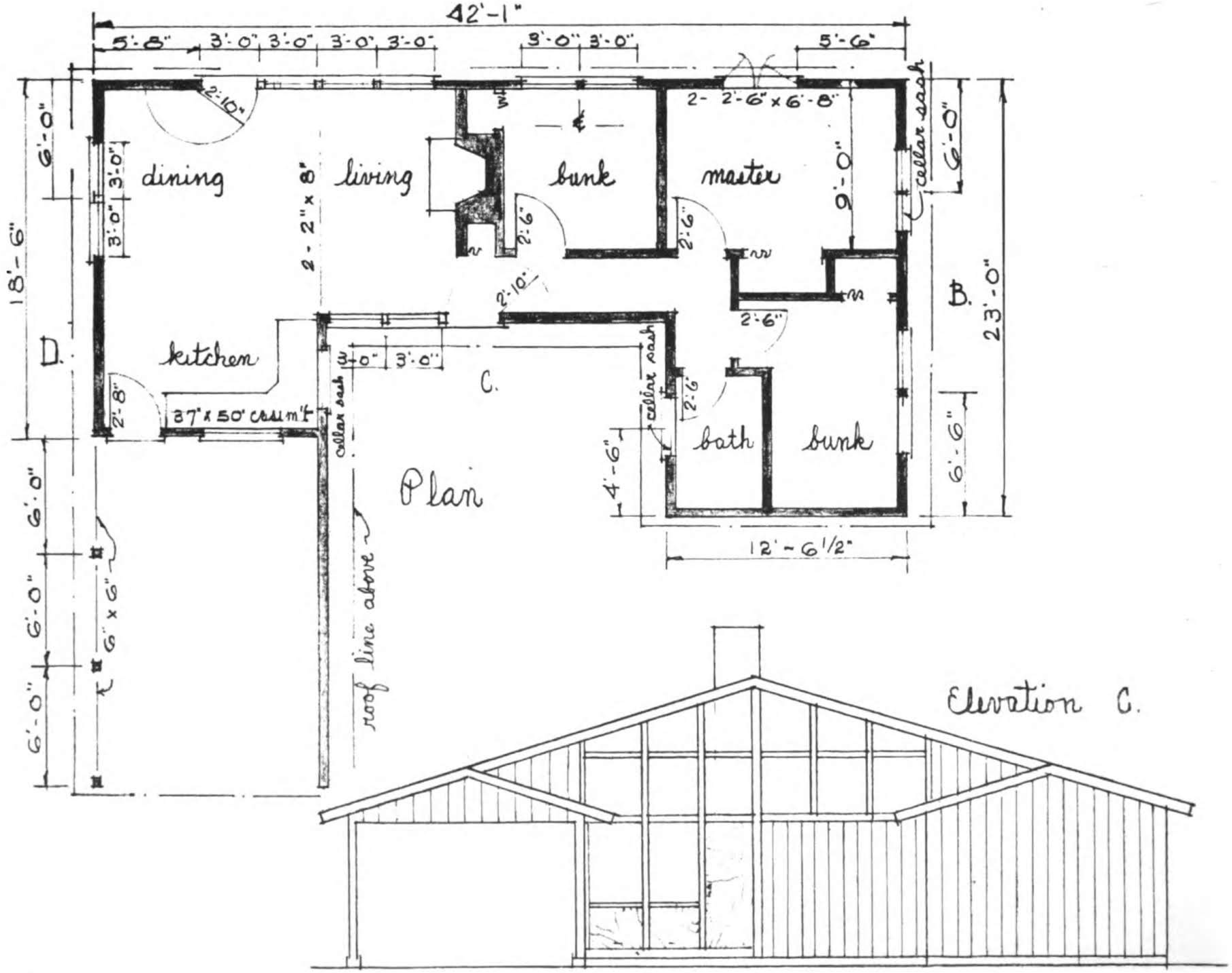
PLAN 8

Here's a more elaborate cottage. Besides having three bedrooms, it has the largest kitchen area of any of the cabins in this section. The car port could serve a number of purposes. It could be used as a porch or, by enclosing it, a year-round playroom could be had. The living-dining area is reasonably large.

The kitchen area could be enclosed by the use of folding doors, or you might prefer to use a small cabinet divider to separate this from the living area.

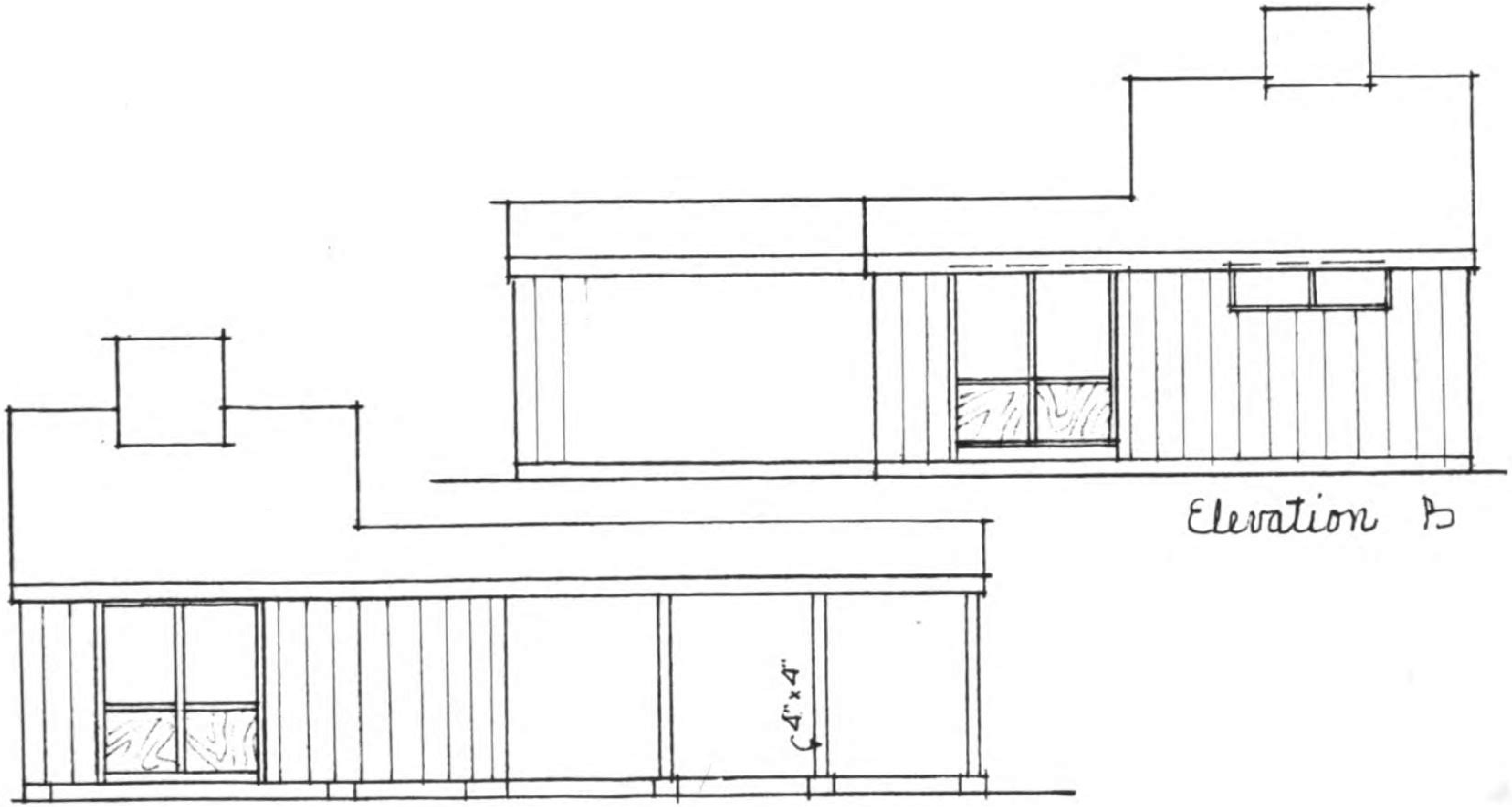
Another change you might like to make is the use of french-type doors in all the outside bedroom walls instead of the vents and fixed glass. Your own living habits and the topography of the site will help you decide. Generally speaking, I find it easier to install a door than build a window area.

If you should decide to omit the fireplace, be sure to make that wall of the living room load-bearing. Double the framing member under this wall and add one more equally spaced pier.



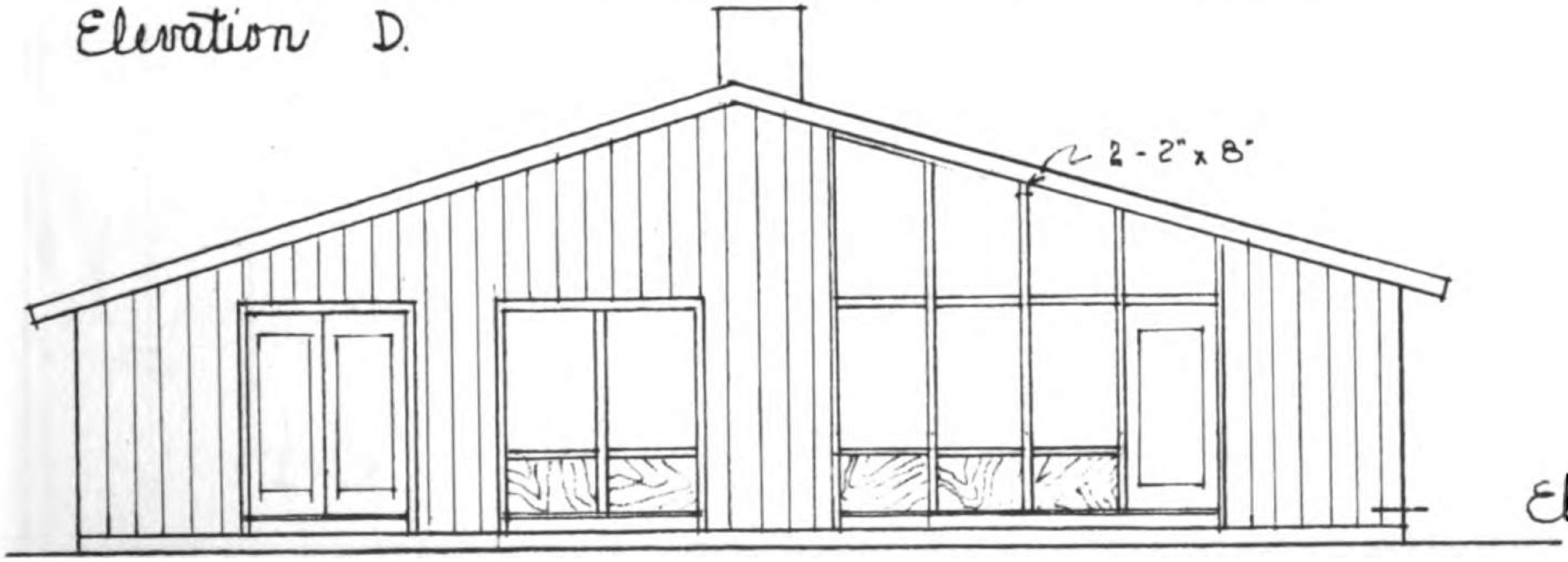
Plan

Elevation C.

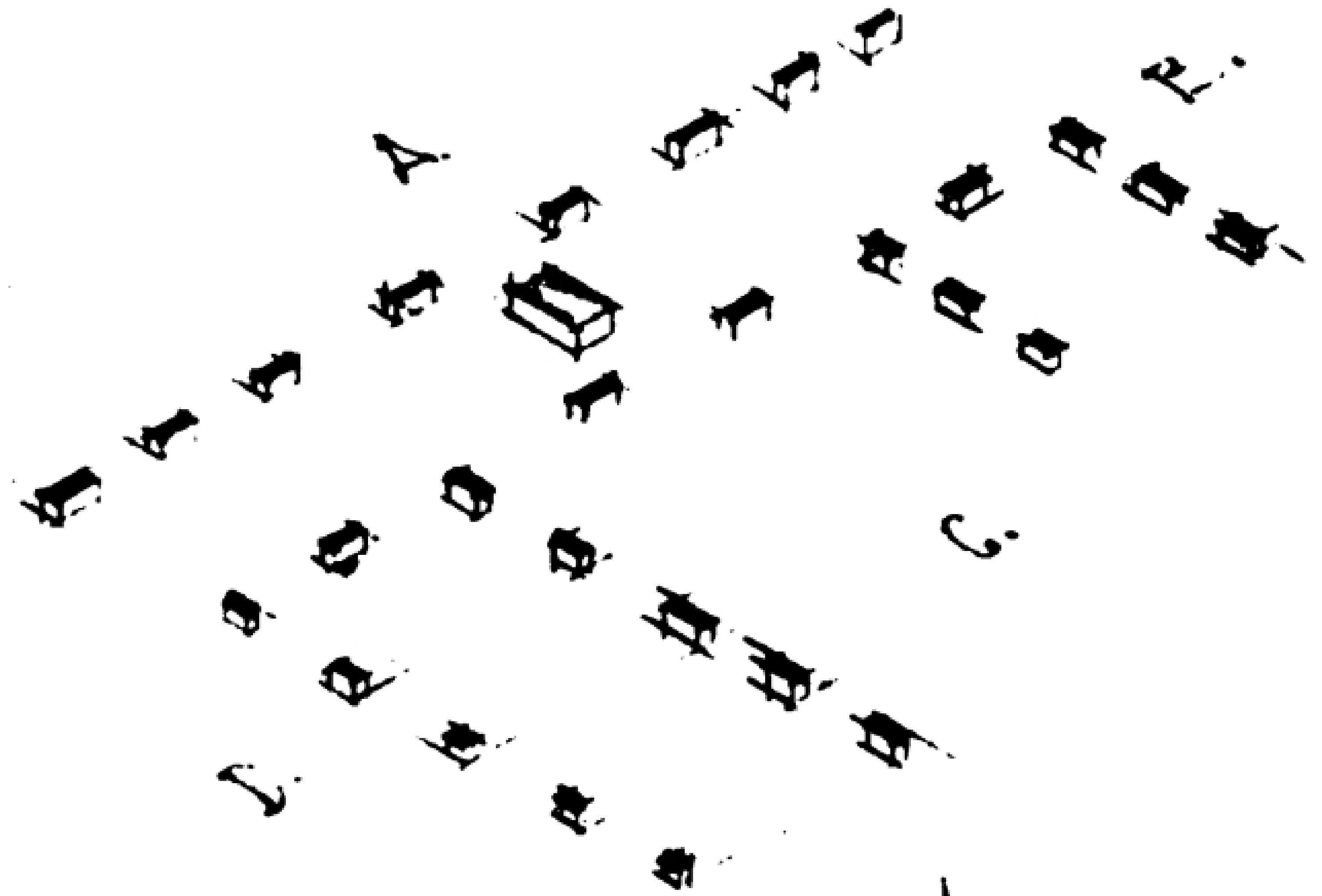


Elevation B

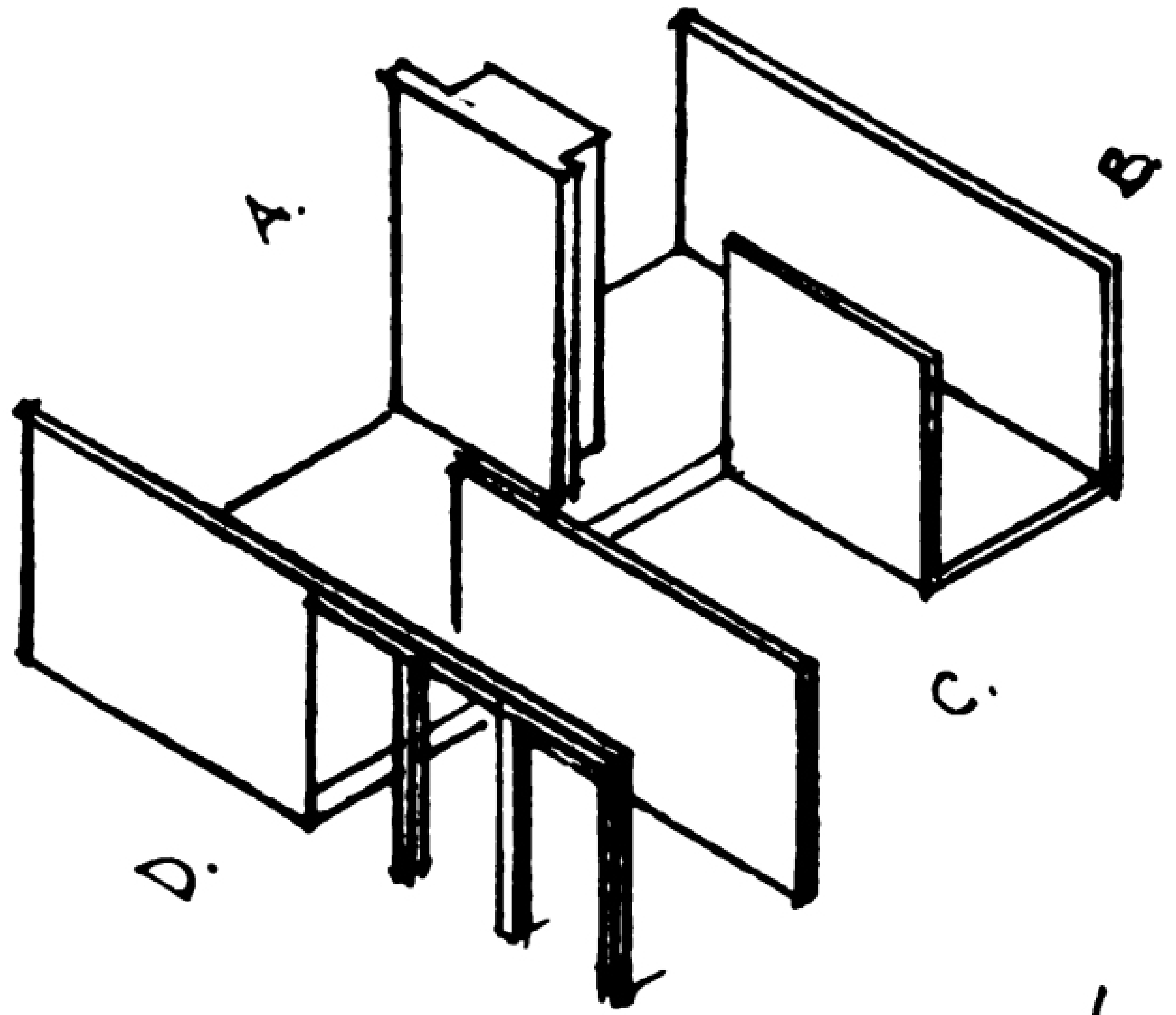
Elevation D.



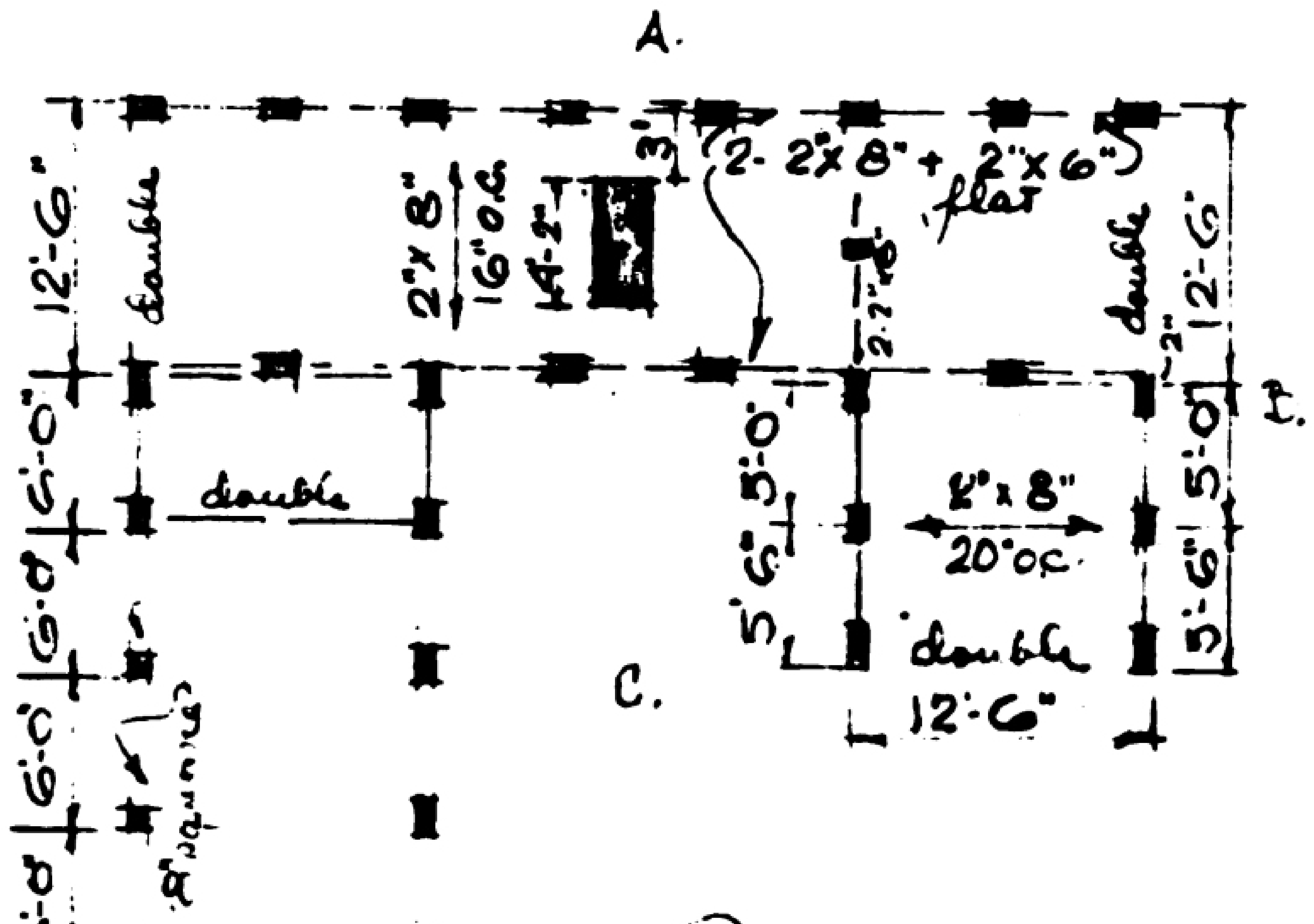
Elevation A.



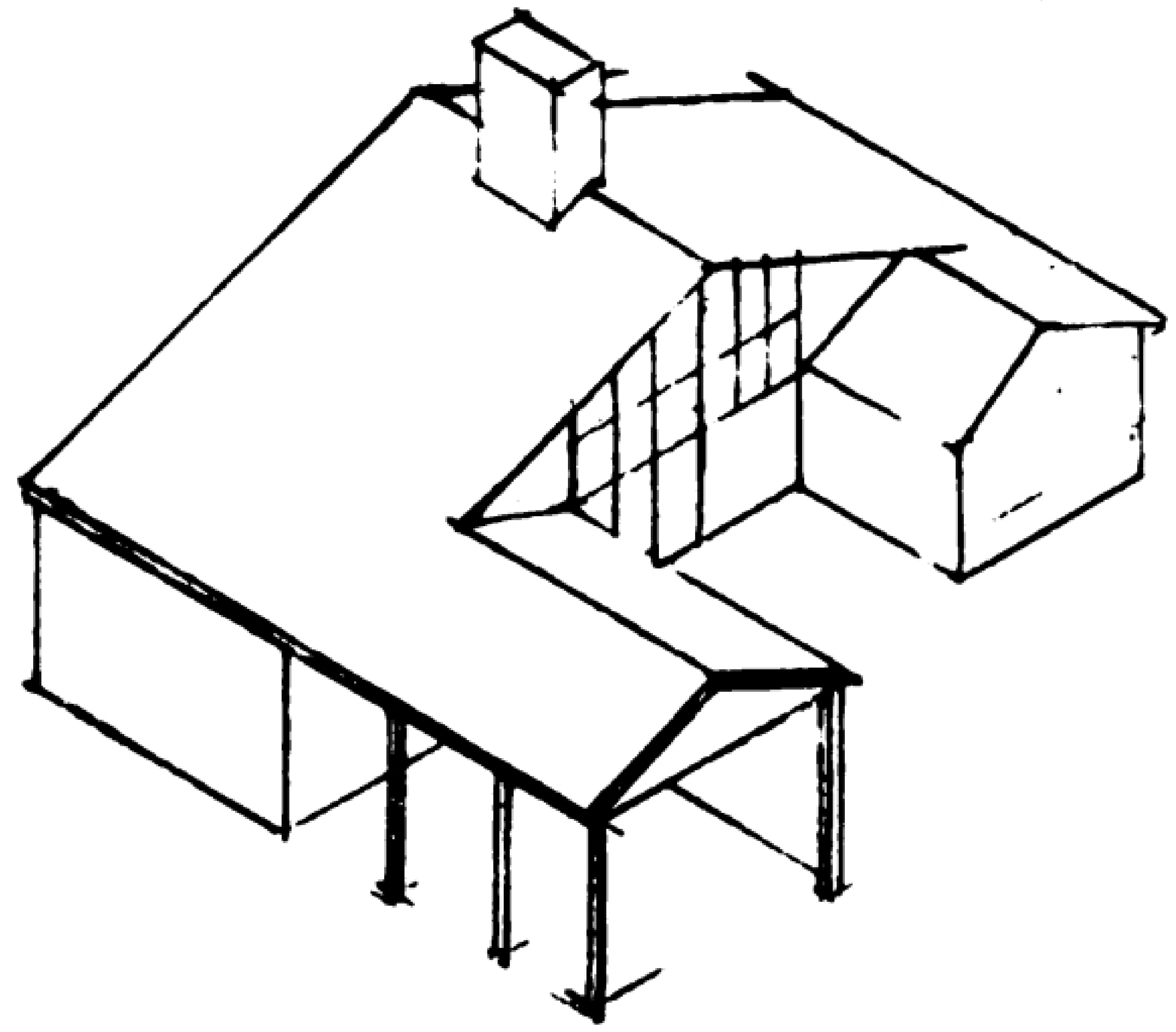
Isometric of piers



Erect these walls first

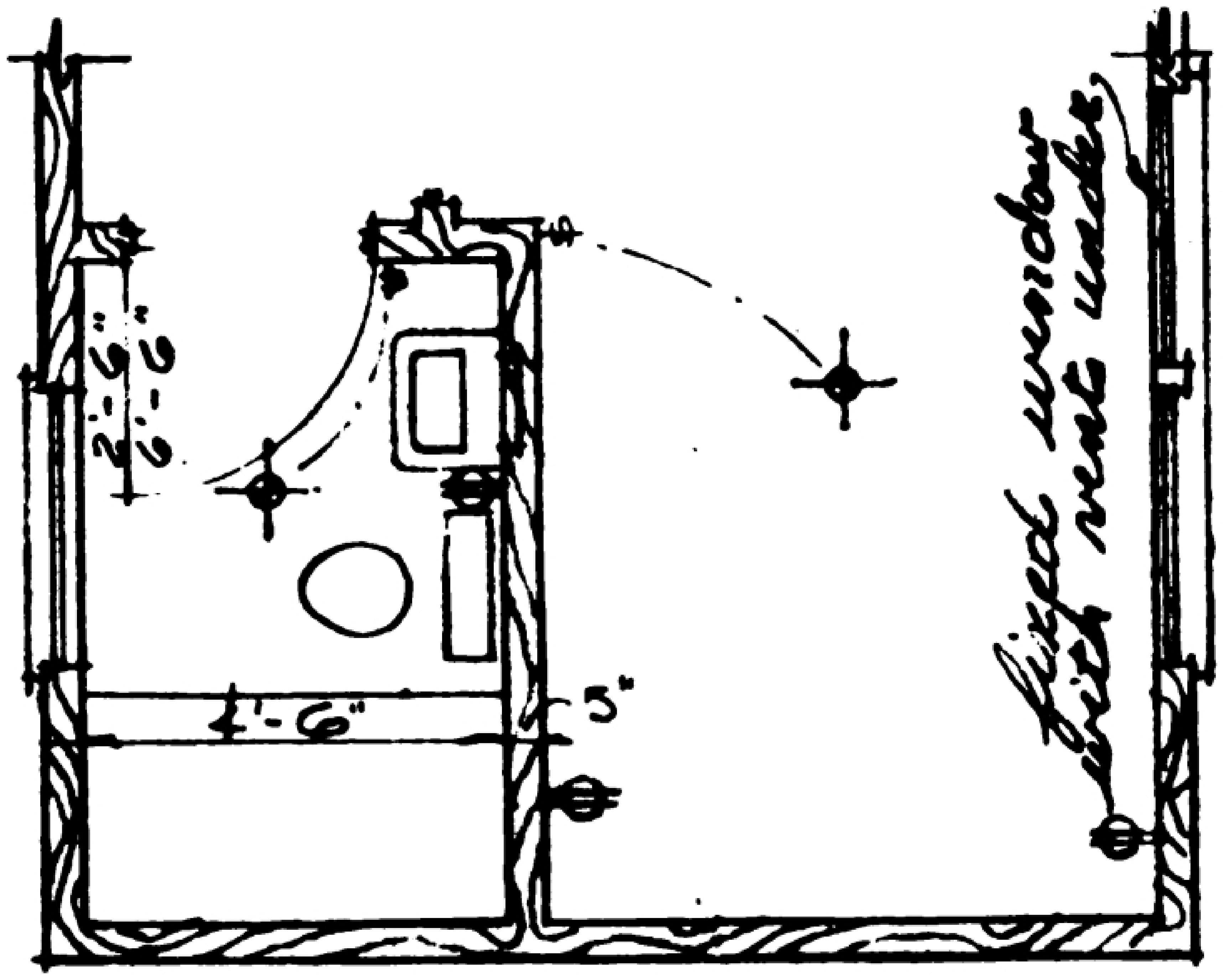


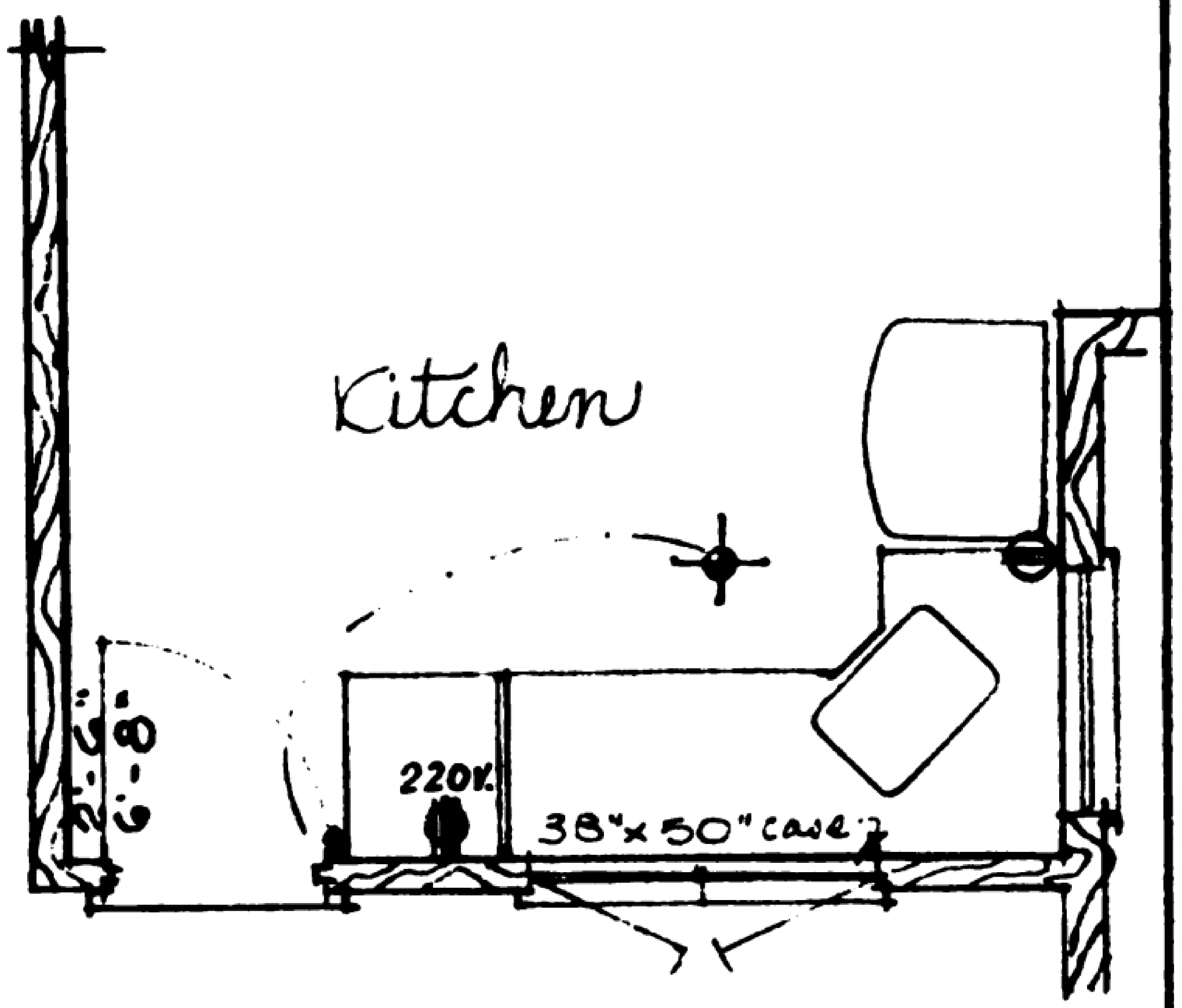
Plan of piers

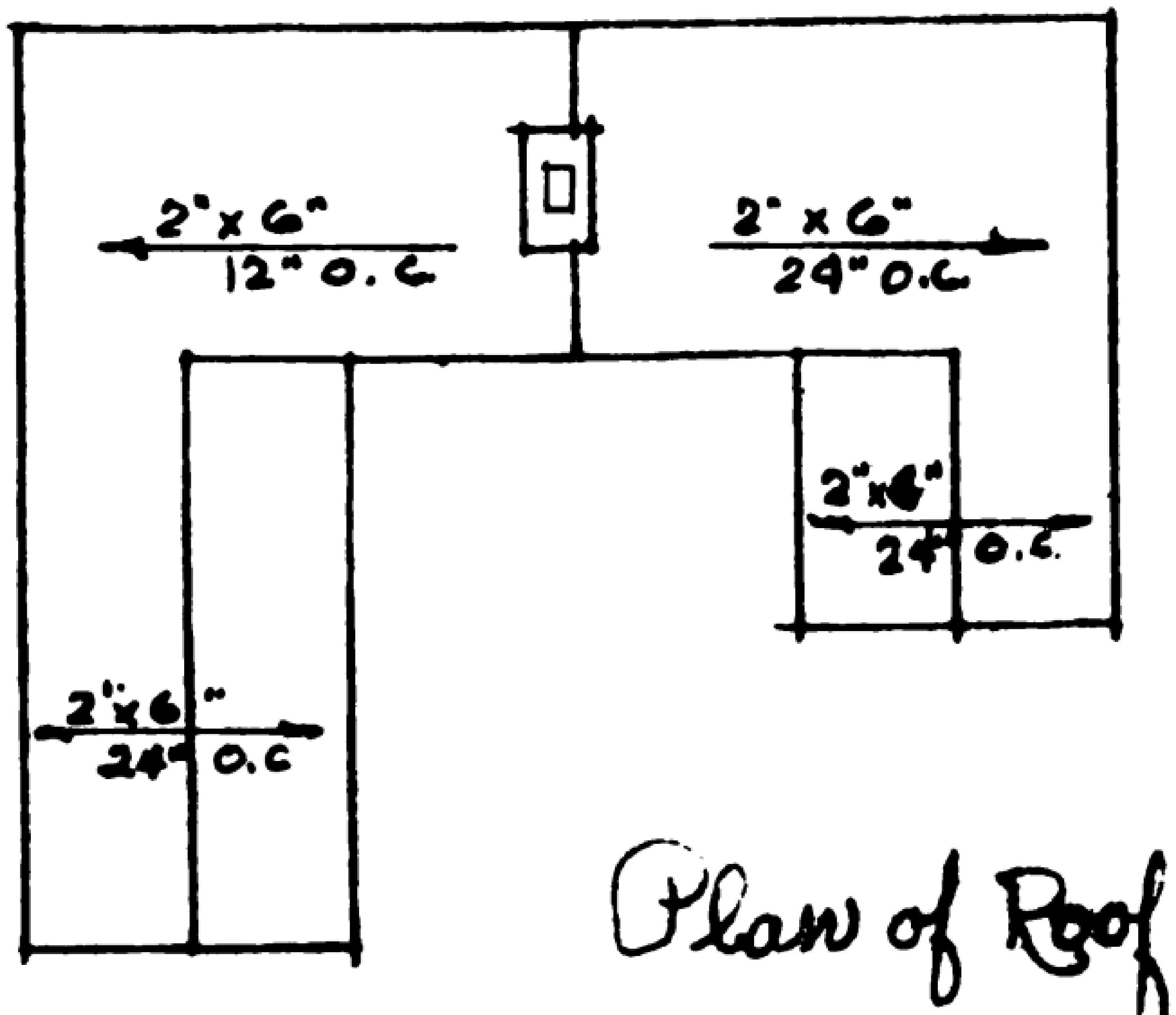


Roof

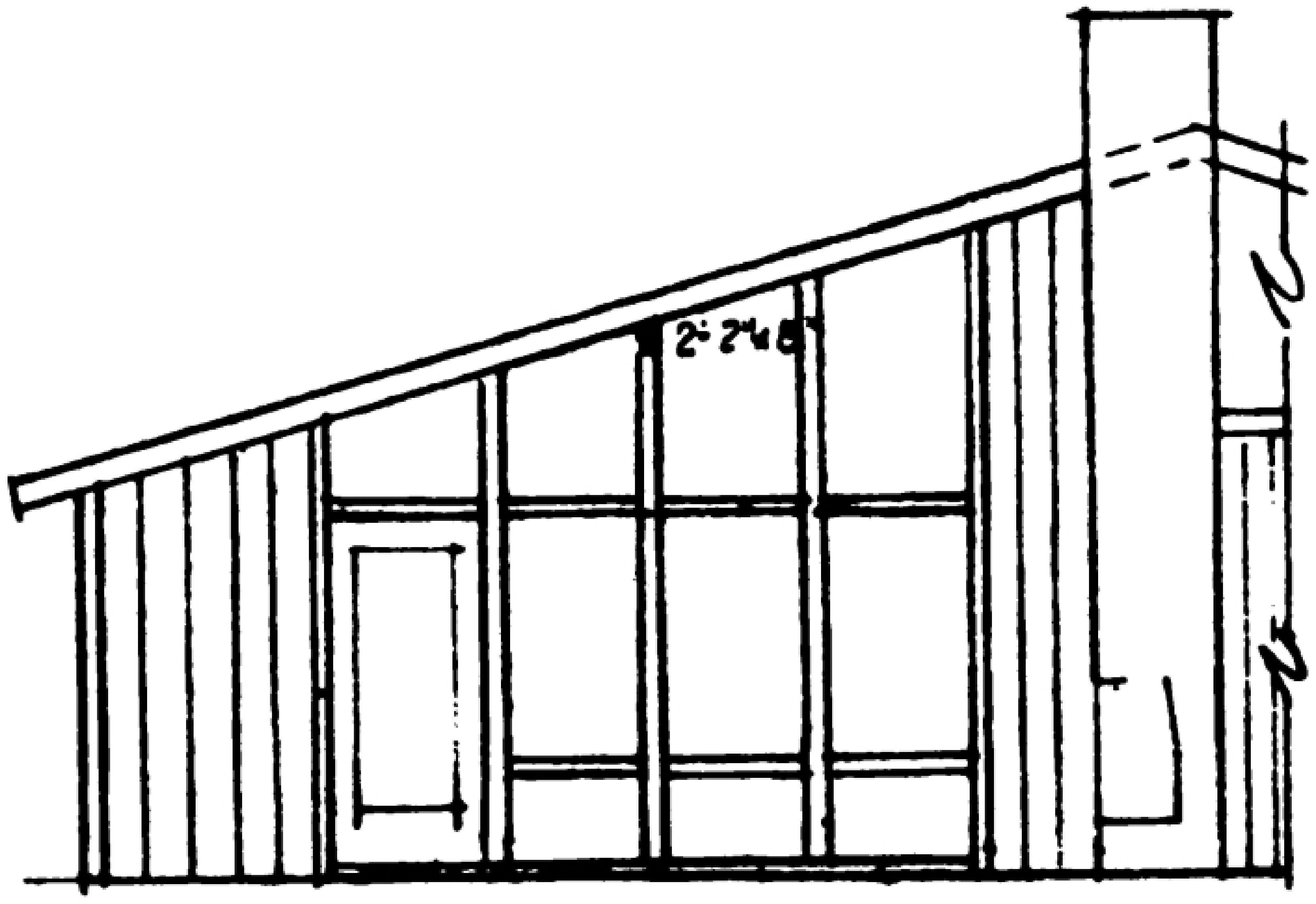
Original from UNIVERSITY OF CALIFORNIA







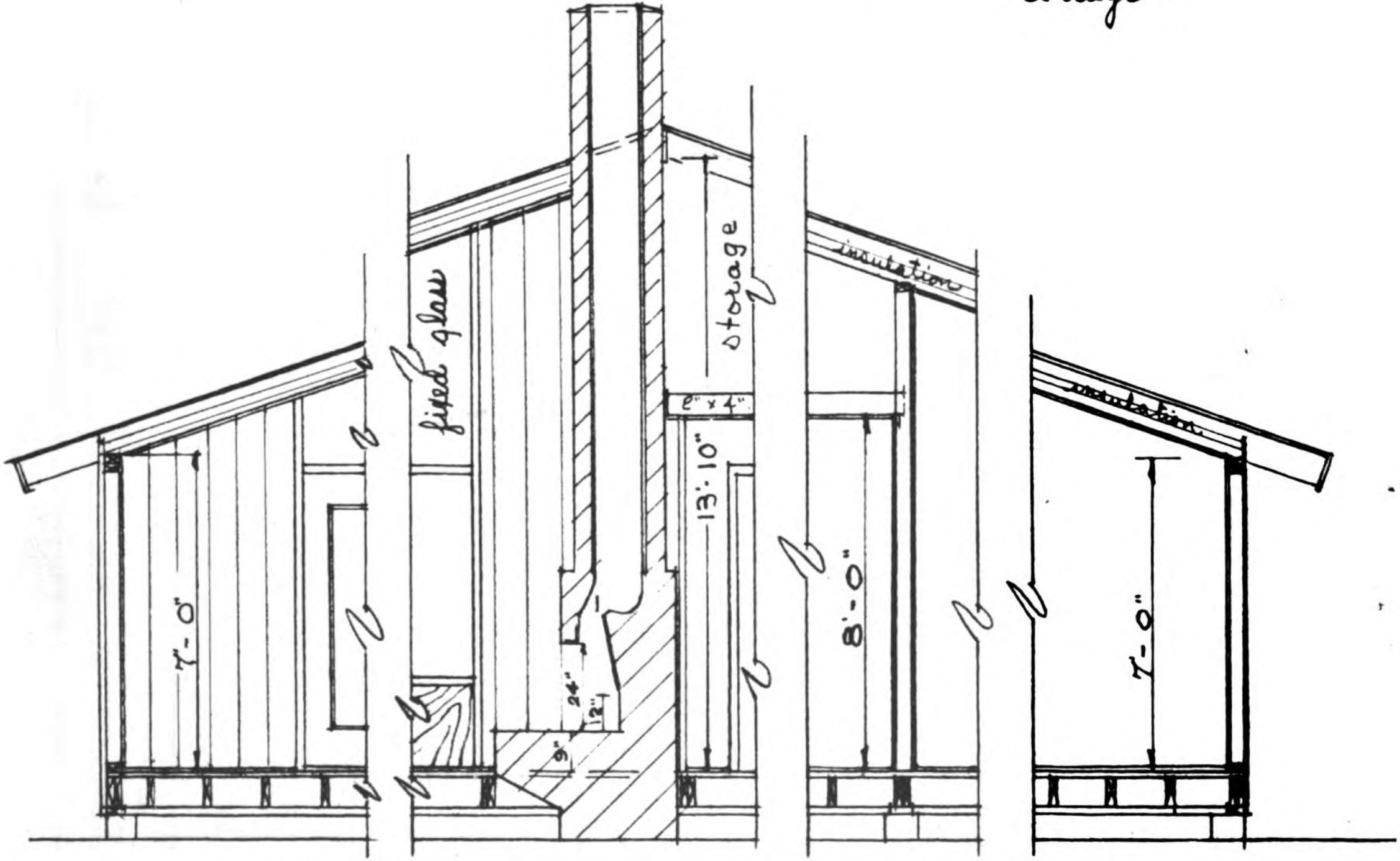
Plan of Roof

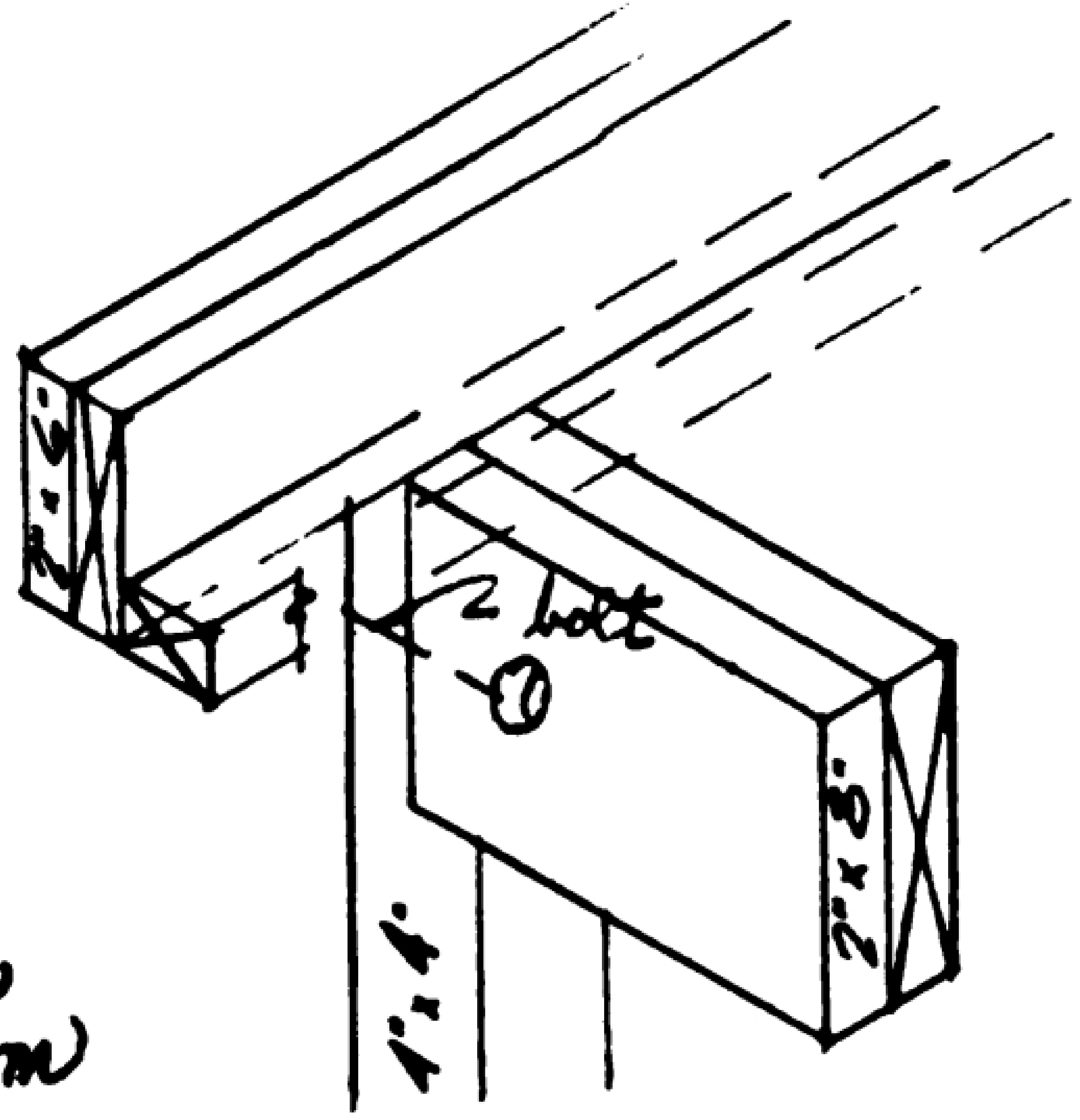


Living Room

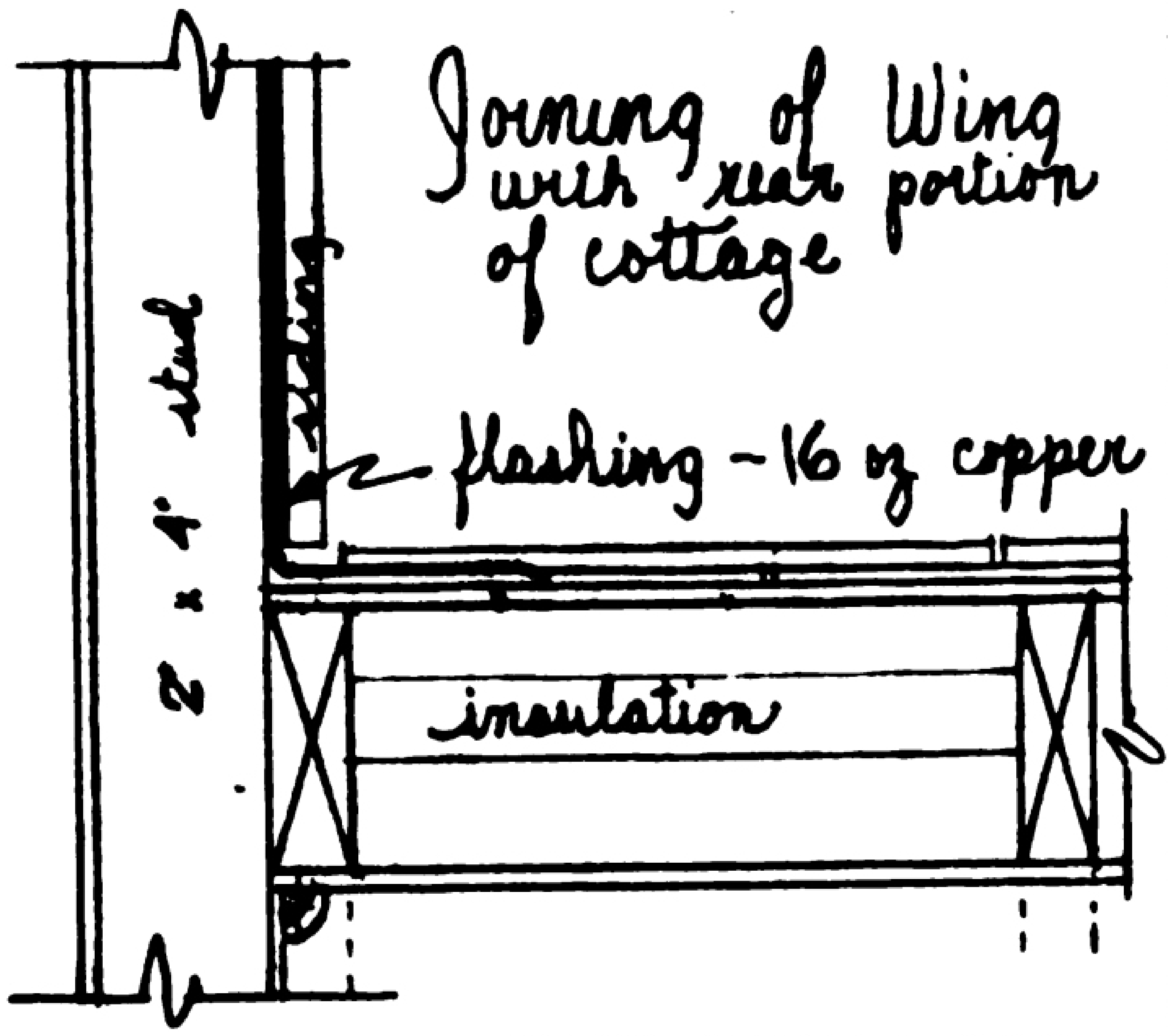
Original from UNIVERSITY OF CALIFORNIA

Section
– thru rear portion of the cottage

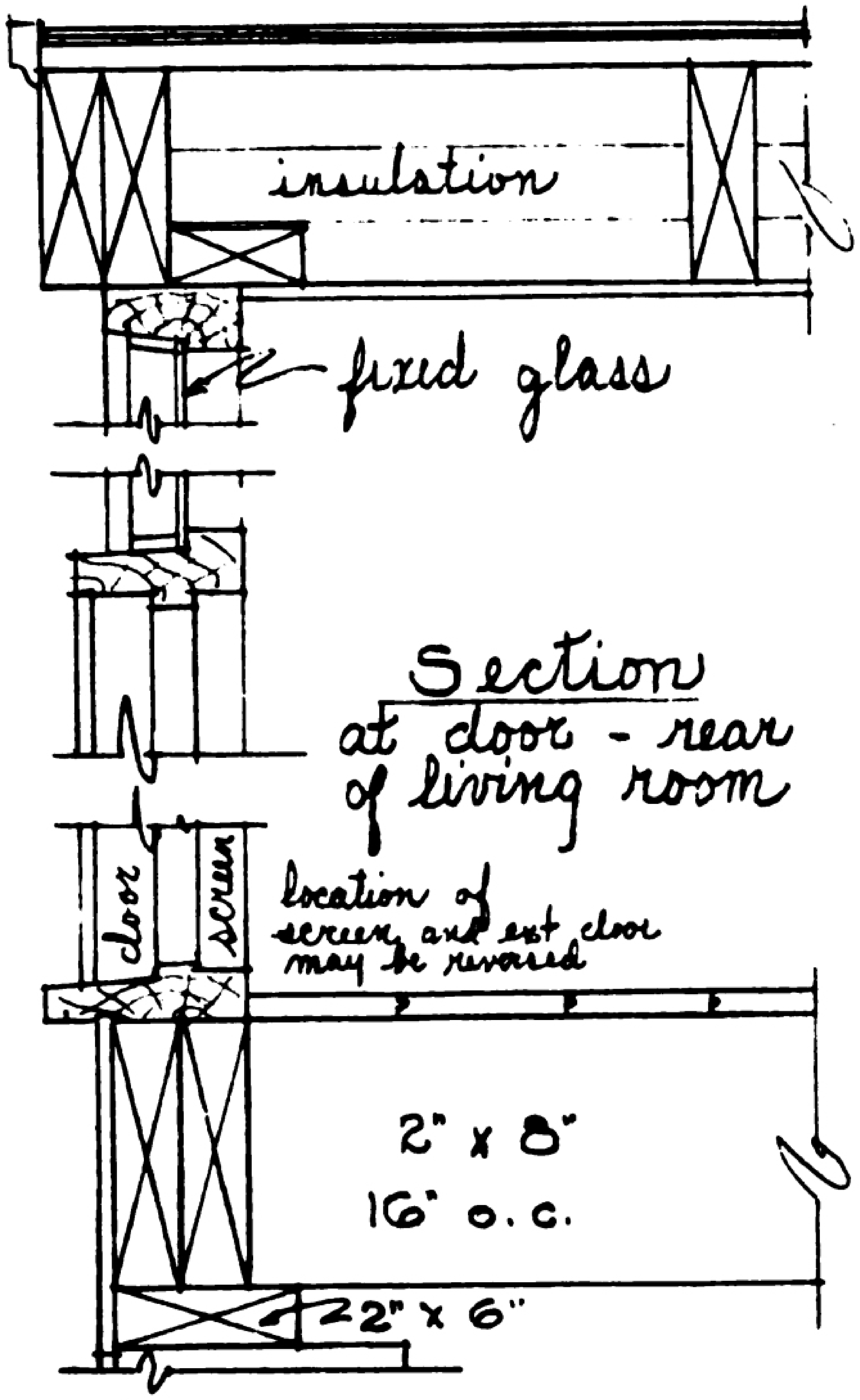




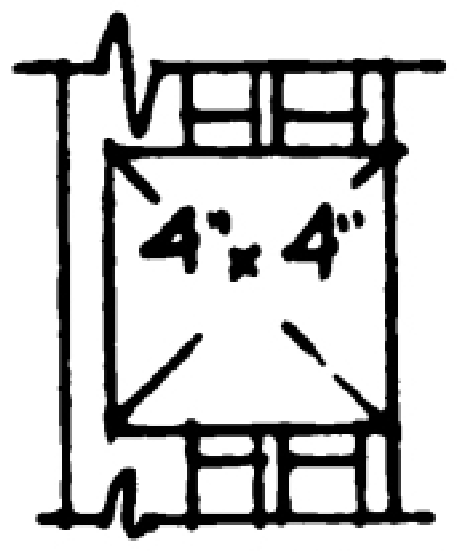
Beam in living room



Joining of Wing with rear portion of cottage



Section at door - rear of living room



Plan of a vertical support

CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill. Fireplace foundation made of stone and poured concrete.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Spike the outer header to inner header. Nail down flooring. Install door and vent sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out walls B and D on the floor. Tip into place and use temporary bracing to hold in vertical position. Frame other walls and partitions. Build fireplace.

Roof: Lay roof rafters in place and place roofing boards over. Use collars as required. Use either roll or shingle roofing. Follow directions in construction section of this book.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed at top, bottom, and at herringbone bracing.

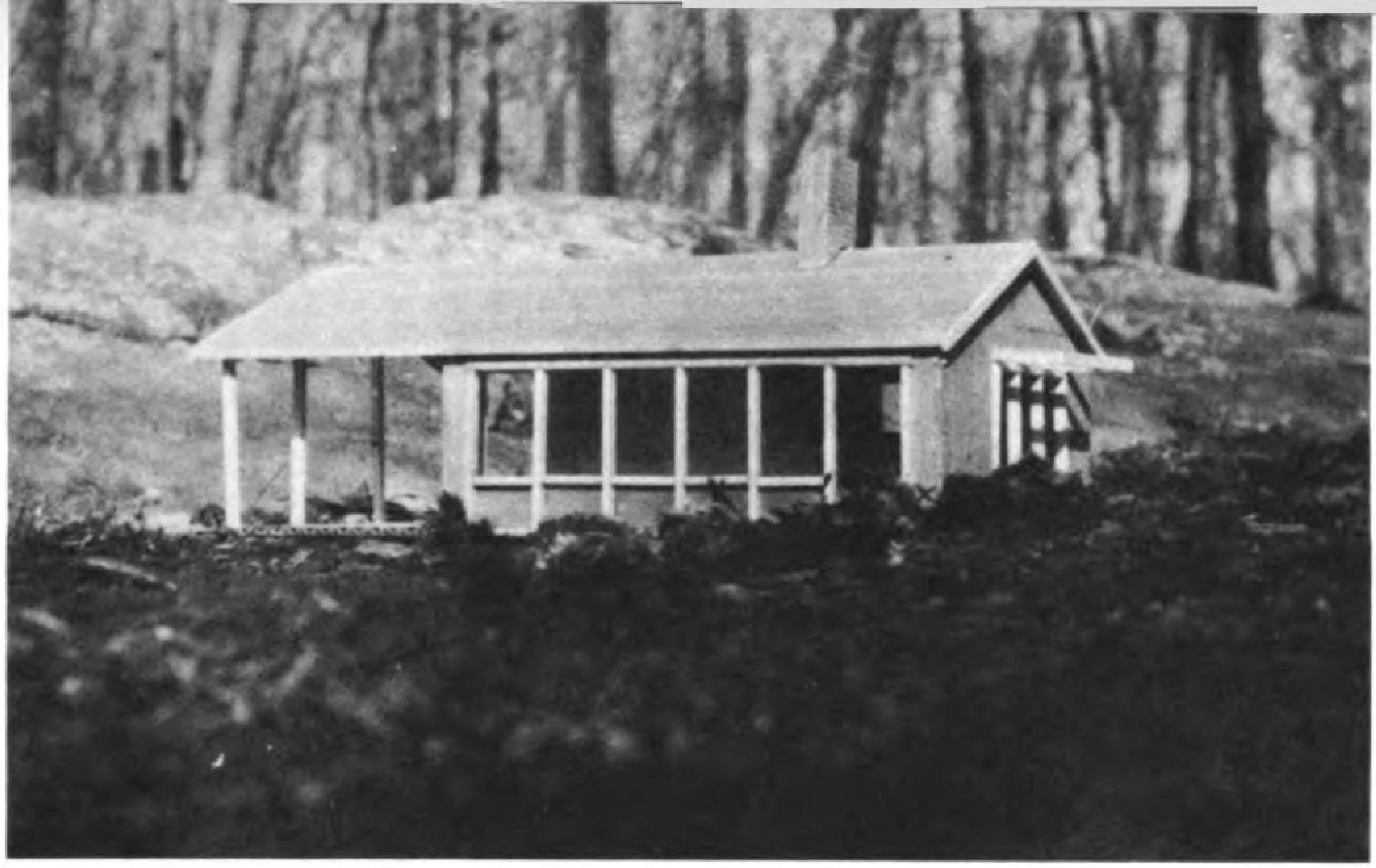
Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of this book.

Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof rafters. Use medium thickness in side wall.

Finish interior as desired. Install plumbing and electrical work as required.

MATERIALS LIST

Concrete for footings	1¼ cu. yd.
Block for piers	depends upon depth
3,500 brick	
28 anchor bolts	½ in. x 8 in.
10 2 x 4 10 ft. long	partitions
30 2 x 4 12 ft. long	framing and sole
64 2 x 4 14 ft. long	framing (about 40 pieces cut in half)
16 2 x 4 18 ft. long	framing (Elev. A and C)
10 2 x 6 10 ft. long	sills and rafters
11 2 x 6 12 ft. long	sills (windows, etc.)
14 2 x 6 14 ft. long	roof rafters
15 2 x 6 16 ft. long	roof rafters
14 2 x 6 24 ft. long	living-room roof rafters (22-ft. lengths if fireplace face of partition is load-bearing)
70 2 x 8 12 ft. long	floor joists, header (girder)
5 4 x 4 8 ft. long	posts
1 4 x 4 12 ft. long	post
5 4 x 4 14 ft. long	posts
320 lineal ft. of window bead	
150 lineal ft. of 1 x 6 fascia board	
1,000 board ft. of flooring	
1,600 board ft. of roofing	
1,400 board ft. of exterior tongue-and-groove siding (vertical)	
1,800 board ft. of interior finish	
976 sq. ft. of ceiling finish material (plus waste)	
2 2 ft. 6 in. x 6 ft. 8 in. exterior single-panel door and screen doors	
1 2 ft. 10 in. x 6 ft. 8 in. exterior single-panel door and screen door	
1 2 ft. 8 in. x 6 ft. 8 in. exterior single-panel door and screen door	
1 2 ft. 10 in. x 6 ft. 8 in. solid-core exterior door and screen door	
4 2 ft. 6 in. x 6 ft. 6 in. interior doors	
2,000 sq. ft. of medium-thick insulation	
3,600 sq. ft. of roofing material (3-ply) and mastic	
5 sheets of 4 ft. x 8 ft. x ¾ in. waterproof plywood	
6 yd. 36-in.-wide plastic screening	
1 38 in. x 50 in. casement window	
2 cellar sash (about 16 in. x 33 in.)	
Glass for fixed panes	
Electric wiring: 110-220 volt, 3-wire system	
Plumbing: piping, pump, tank, water heater, water closet, basin, tub, sink	
Septic tank	
Range	
Refrigerator	

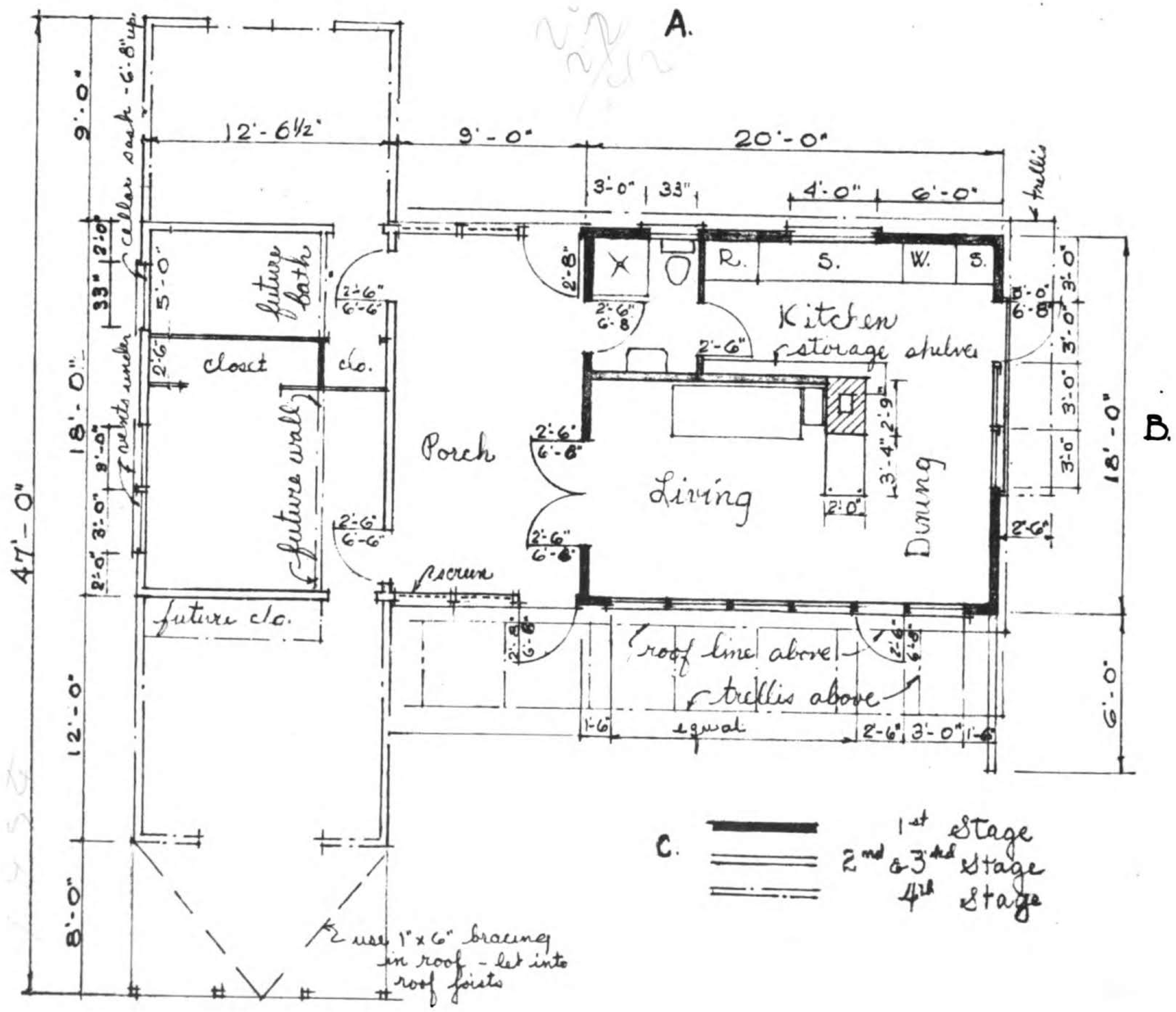


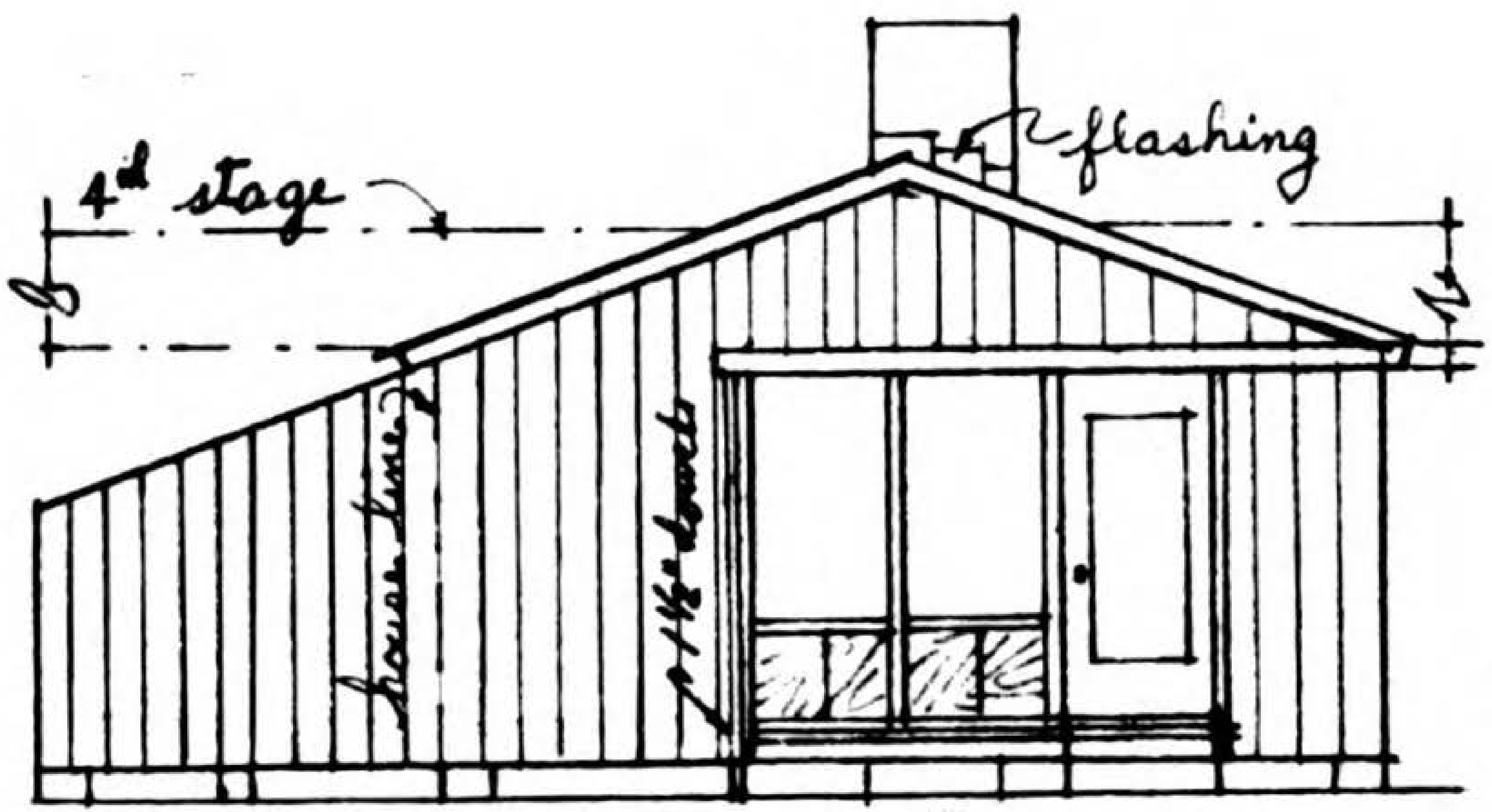
PLAN 9

This cottage would make a good year-round home if it were properly heated and insulated. It has a good kitchen with enough space for a washer and drier. While the living and dining areas are a bit small, the built-in units would make the house seem larger. This plan also allows you to add on more bedrooms at a future date.

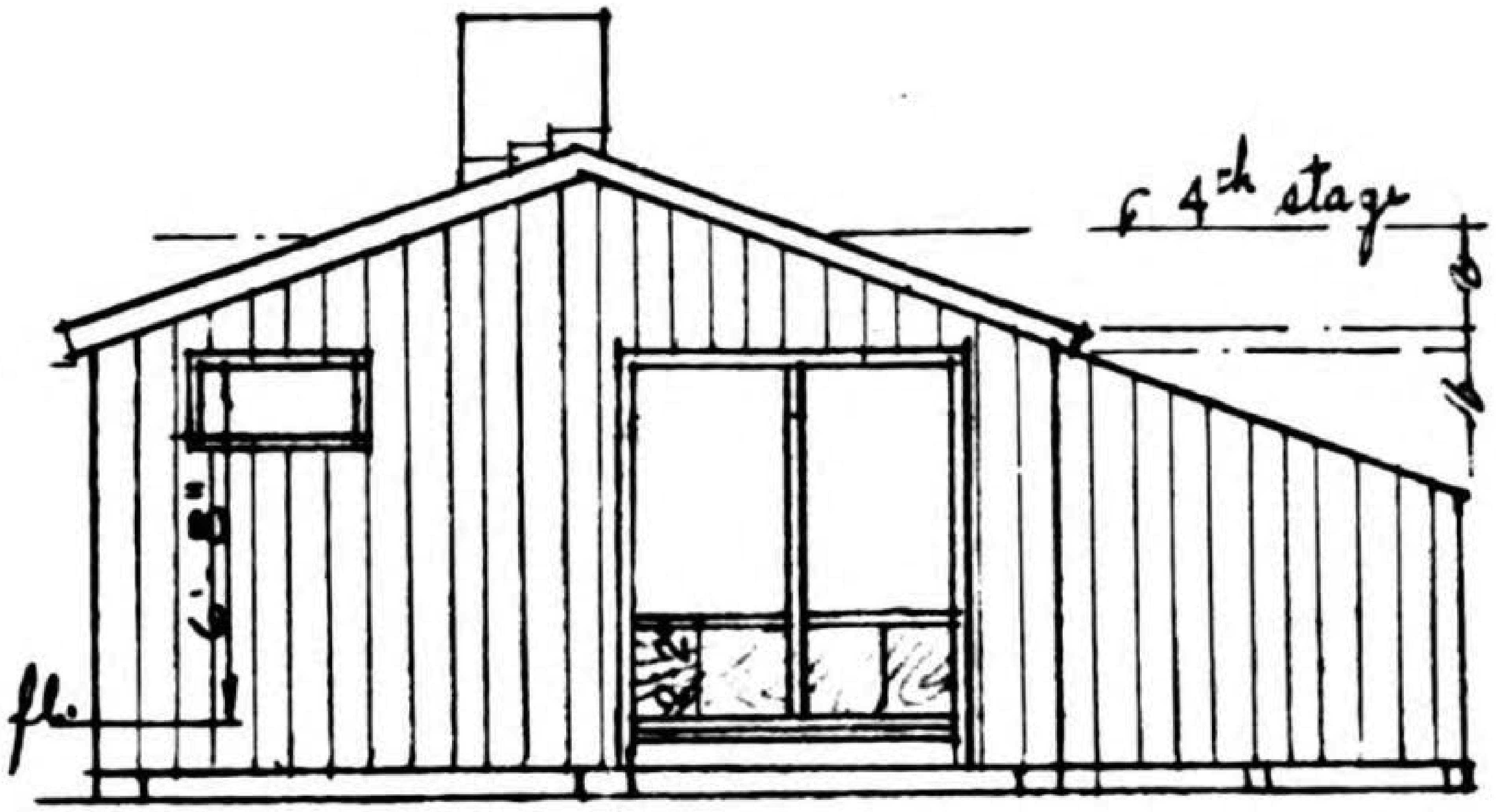
The spur wall running out from one end might be helpful in shielding the living area from near neighbors. However, it isn't essential structurally and doesn't have to go on the house.

The fireplace will require some special metalwork. Perhaps you would rather use a solid masonry hood over the hearth. If you decide to omit the fireplace entirely, run one structural member from the floor to the roof peak to tie in the partition.

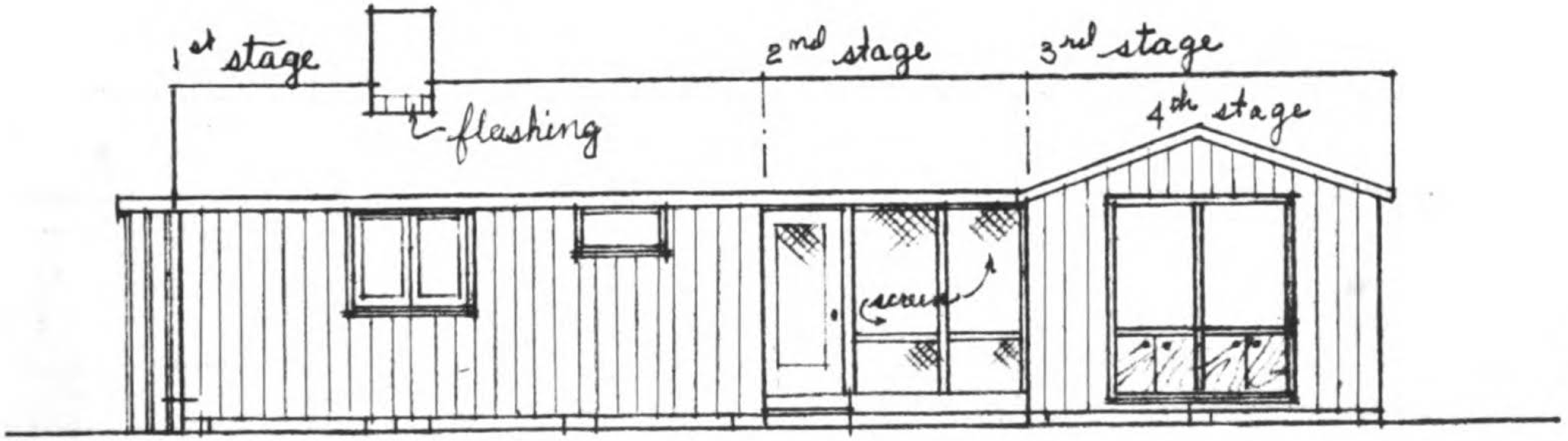

A.
B.
C.
47'-0"
9'-0"
18'-0"
12'-0"
8'-0"
12'-6½"
9'-0"
20'-0"
3'-0"
33"
4'-0"
6'-0"
trellis
cellar sash - 6'-8" up
2'-0"
33"
5'-0"
future bath
2'-6"
6'-6"
closet
clo.
2'-6"
vents under
8'-0"
3'-0"
2'-0"
future wall
Porch
2'-6"
6'-8"
2'-6"
6'-8"
R.
S.
W.
S.
Kitchen
storage shelves
2'-6"
6'-8"
2'-6"
2'-9"
3'-4"
2'-0"
Living
Dining
2'-6"
6'-6"
screen
future clo.
2'-8"
6'-8"
roof line above
trellis above
2'-6"
6'-8"
1'-6"
equal
2'-6"
3'-0"
1'-6"
3'-0"
3'-0"
3'-0"
3'-0"
3'-0"
6'-8"
18'-0"
6'-0"
2'-6"
use 1"x6" bracing in roof - let into roof joists
1st Stage
2nd & 3rd Stage
4th Stage


4th stage
flashing
8
1
house line
1 1/2" dowels

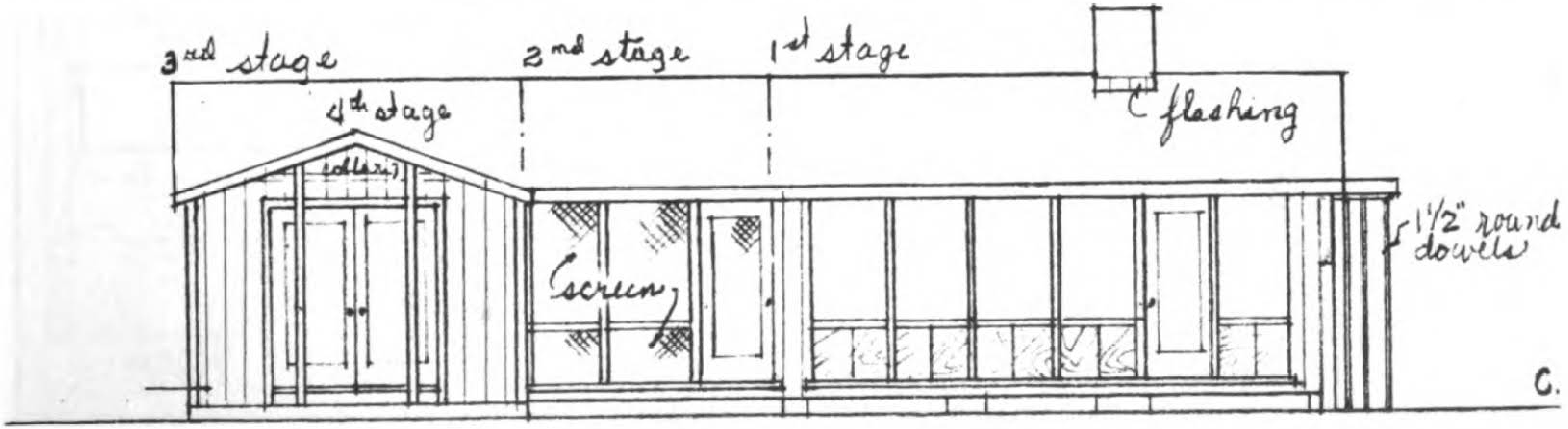
B.


4th stage
6
1
6'-8"
fl.

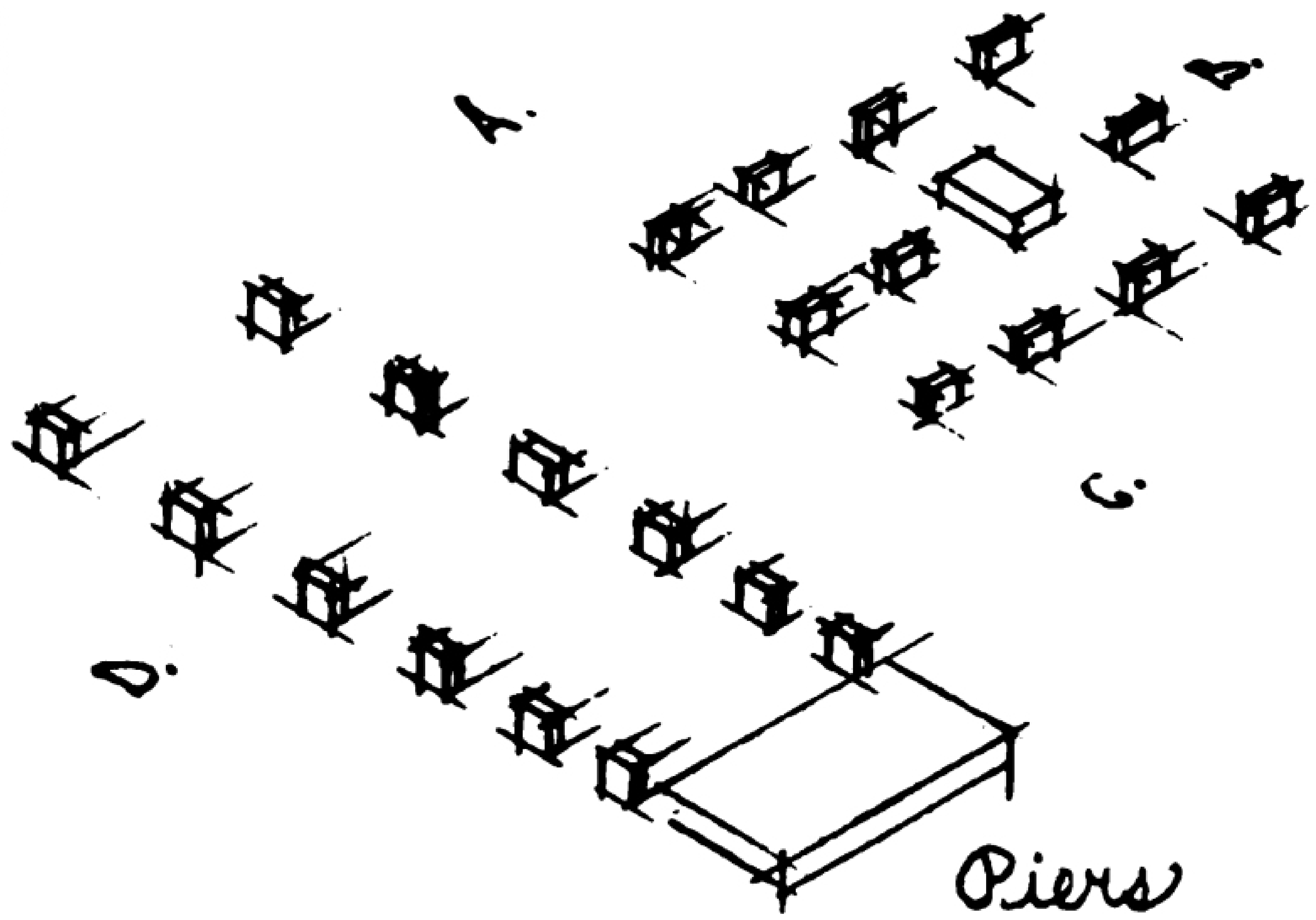
D.

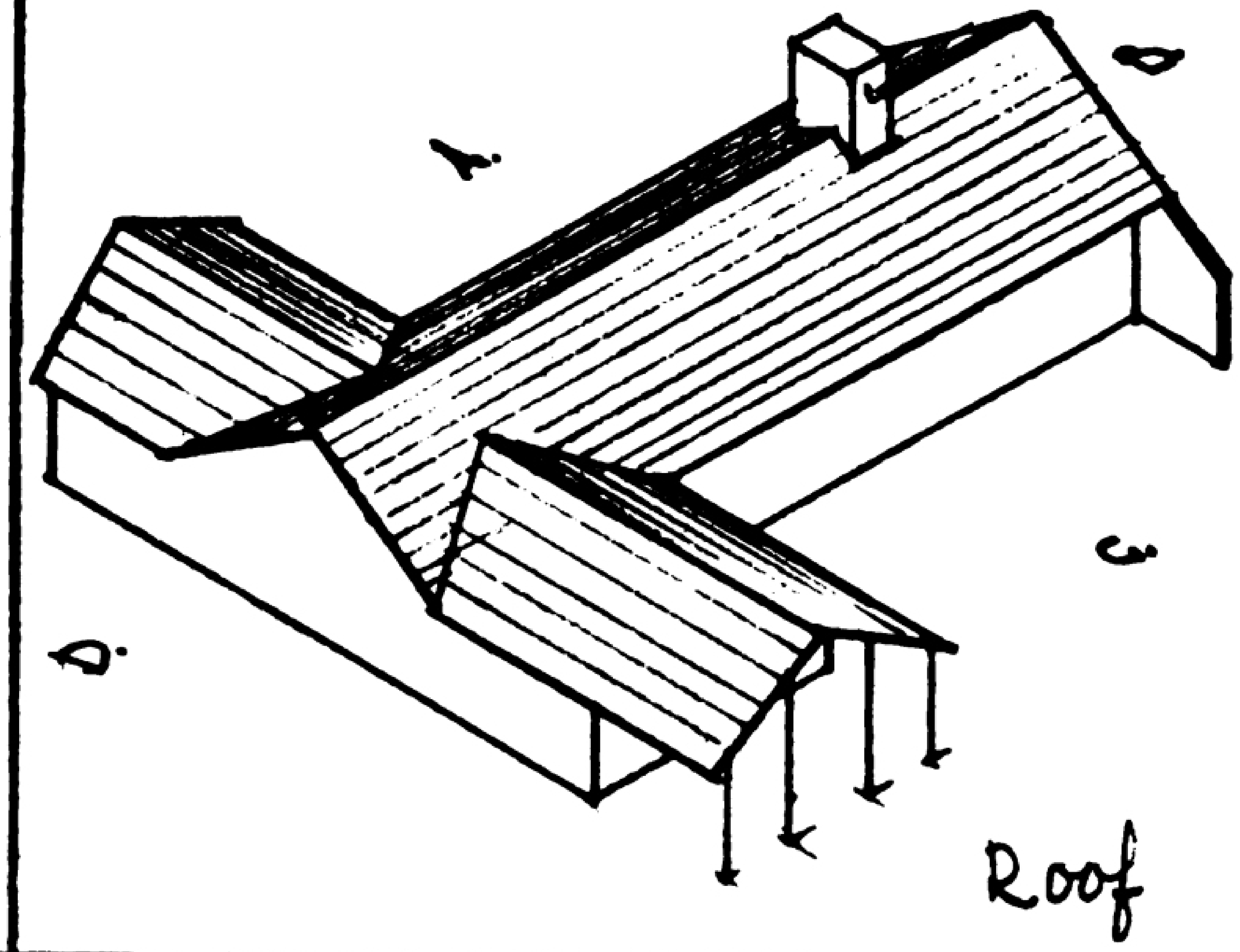

1st stage
2nd stage
3rd stage
flashing
4th stage
screen

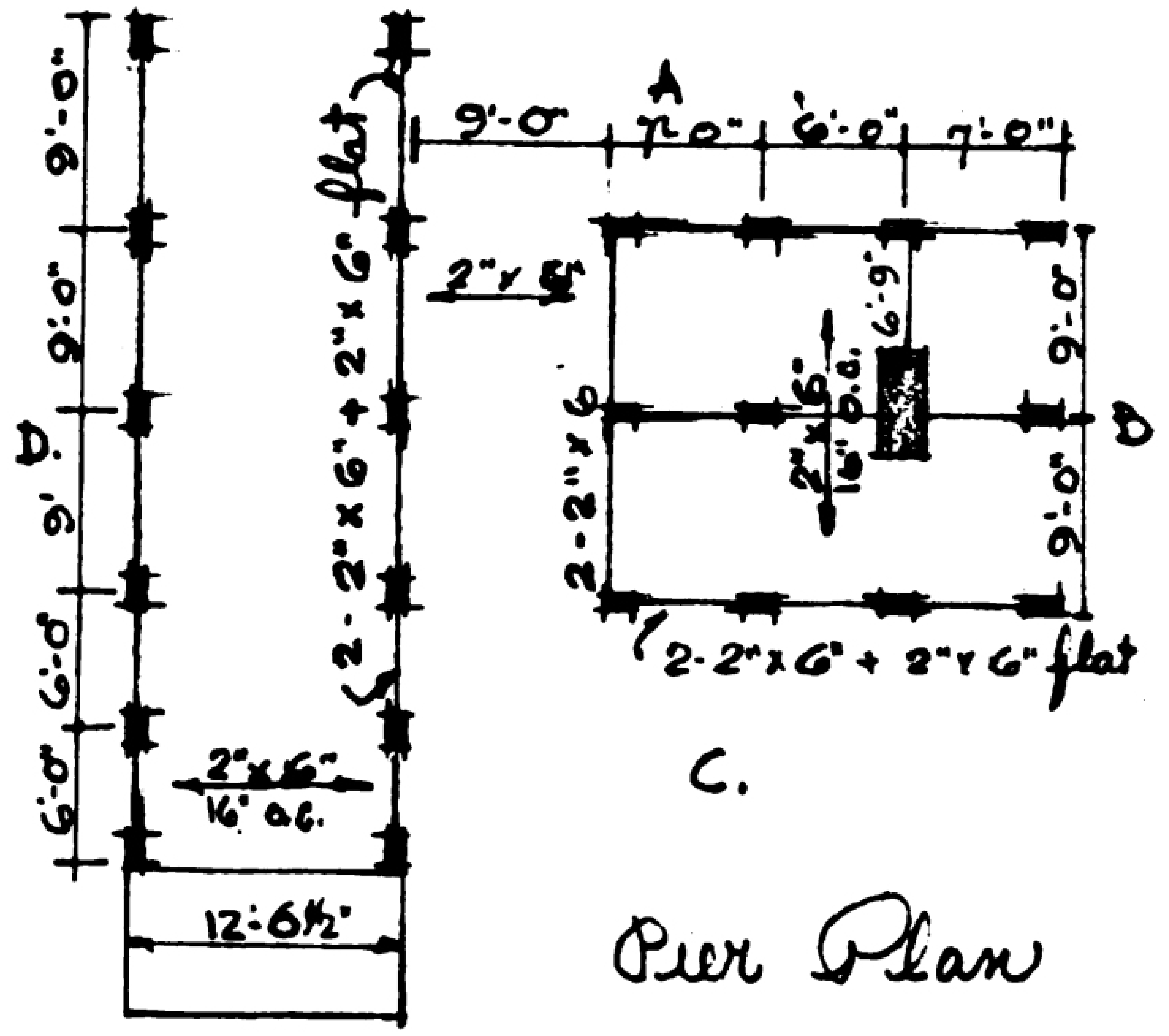
A.

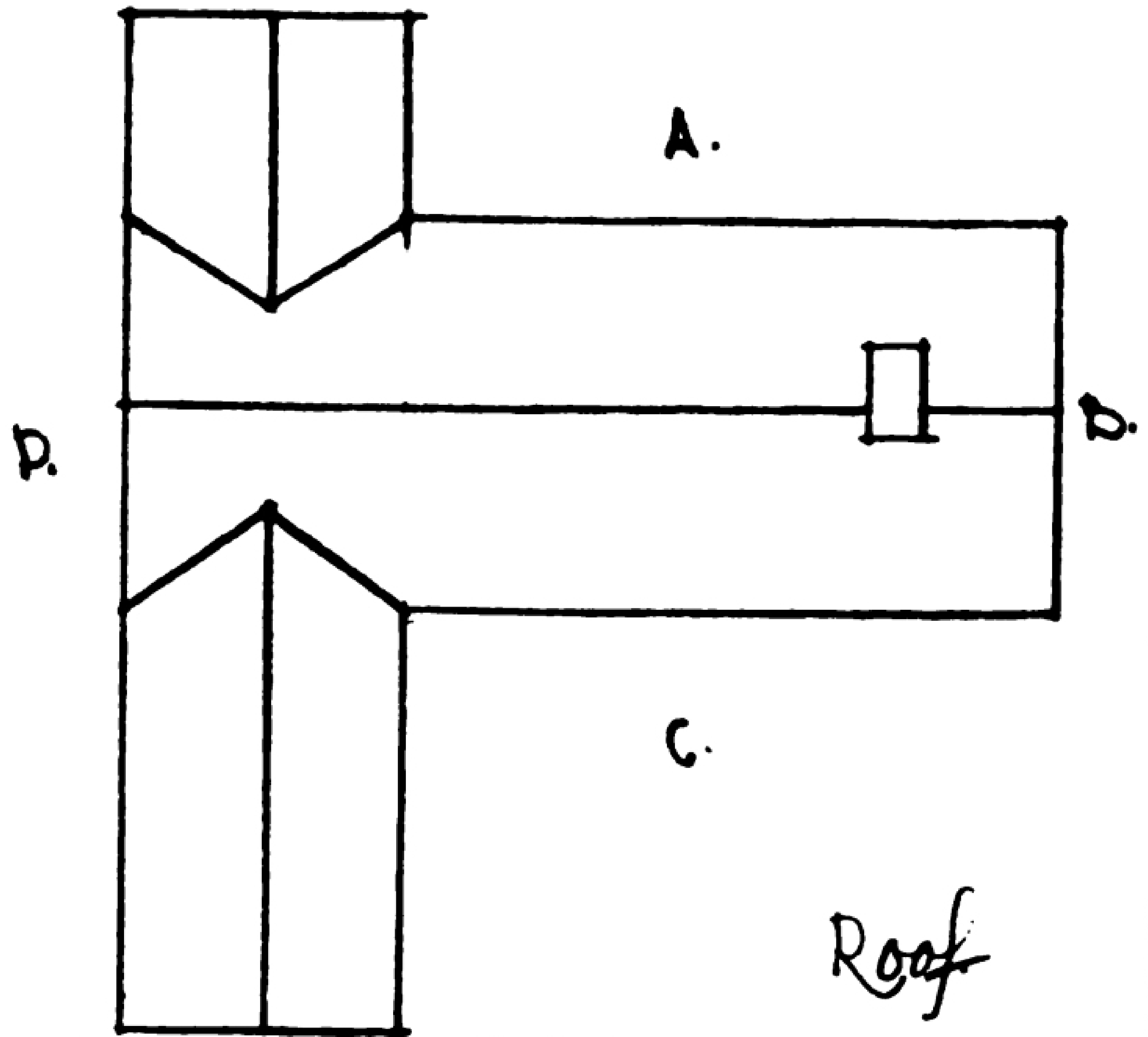

3rd stage
2nd stage
1st stage
4th stage
(collar)
flashing
screen
1 1/2" round dowels

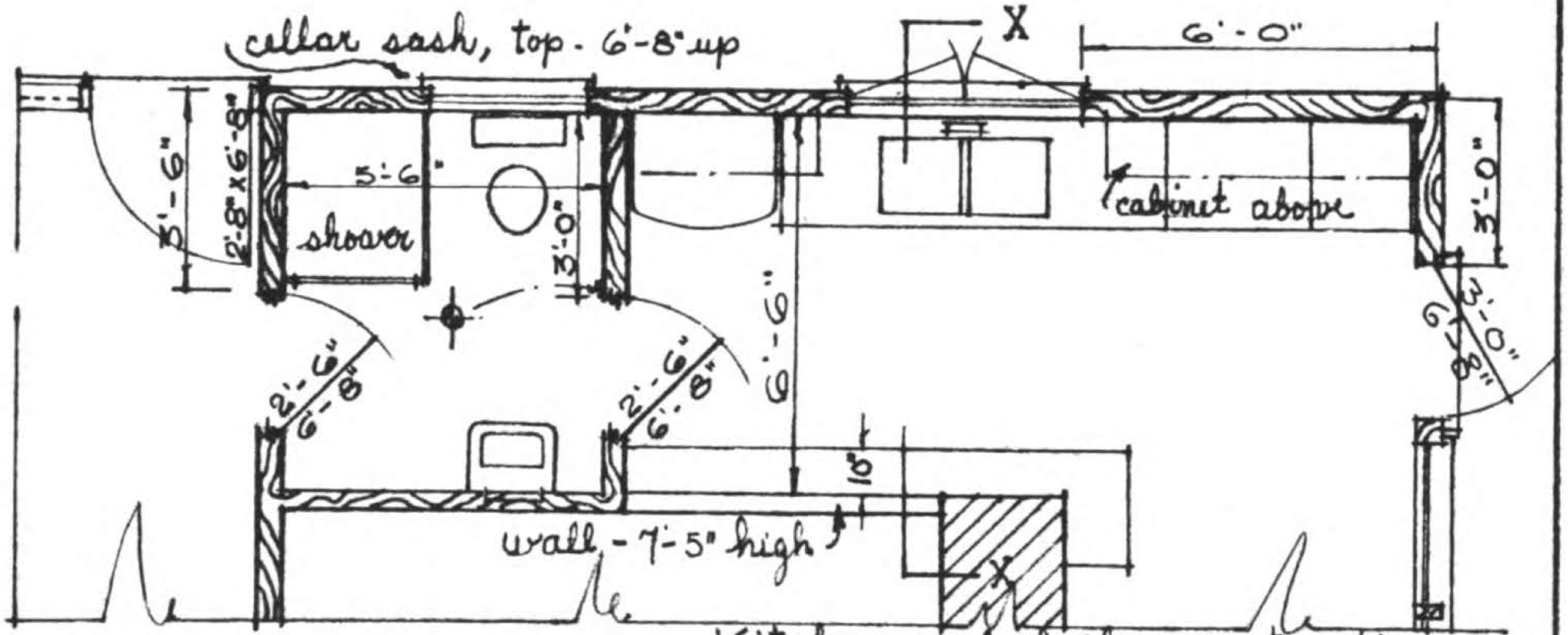
C.


A.
B.
C.
D.
Piers

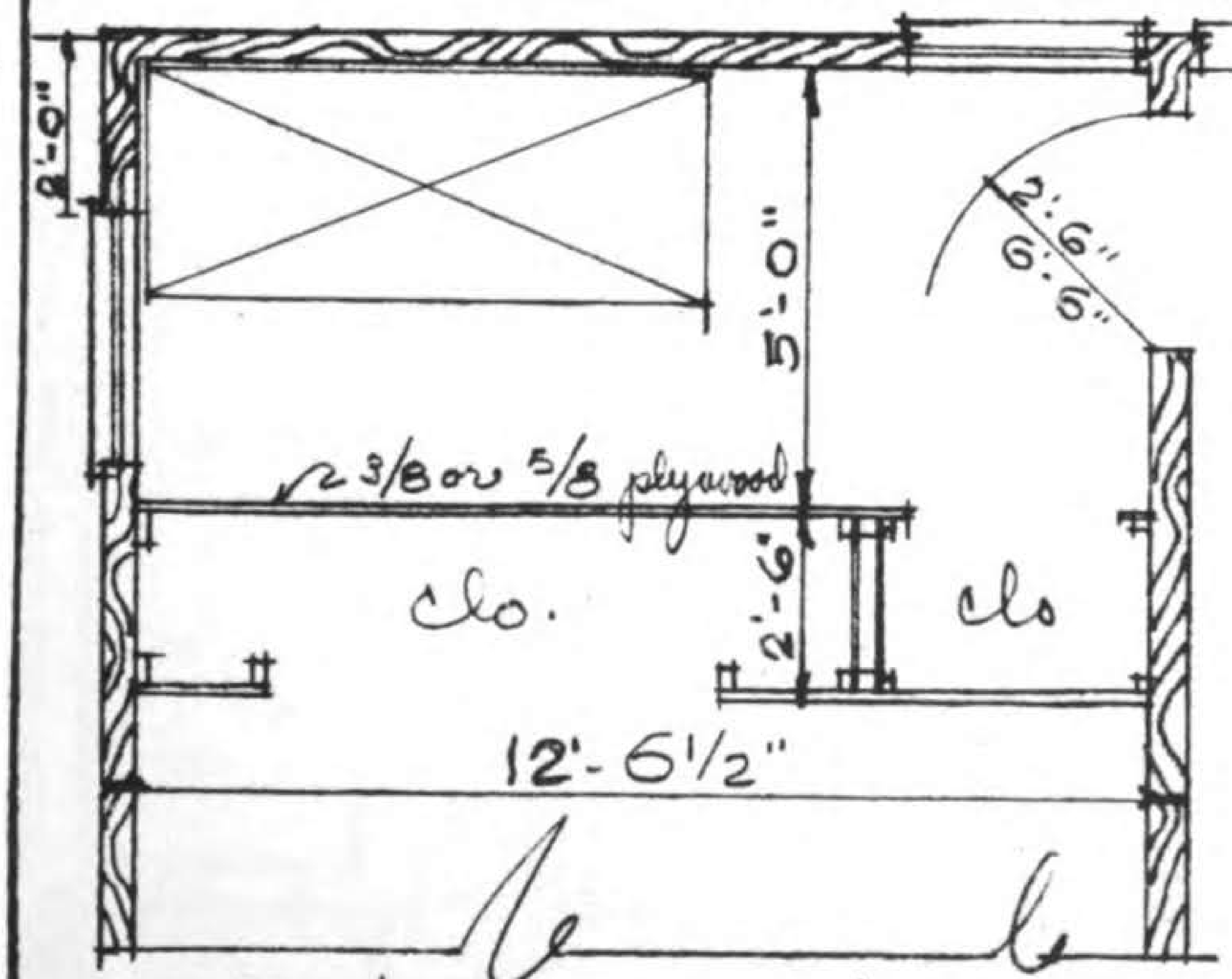

A.
B
C
D.
Roof


A
9'-0"
9'-0"
9'-0"
9'
6'-0"
6'-0"
D.
2-2"x6" + 2"x6" flat
9'-0
7'-0"
6'-0"
7'-0"
2"x 5"
6'-9"
2"x6"
16" o.c.
2-2"x6
9'-0"
9'-0"
B
2-2"x6" + 2"x6" flat
2"x6"
16" o.c.
12'-6½"
C.
Pier Plan

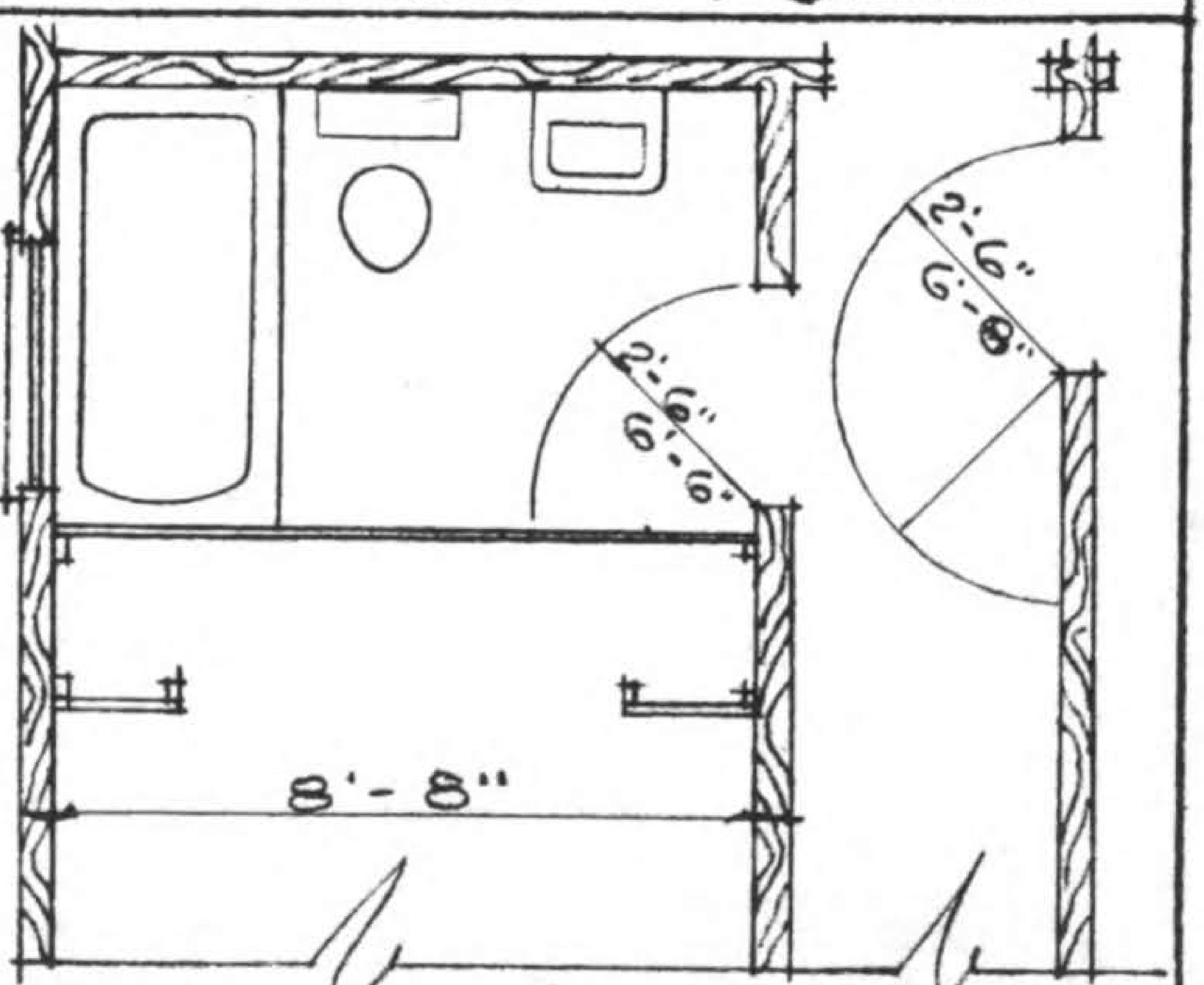

A.
D.
B.
C.
Roof



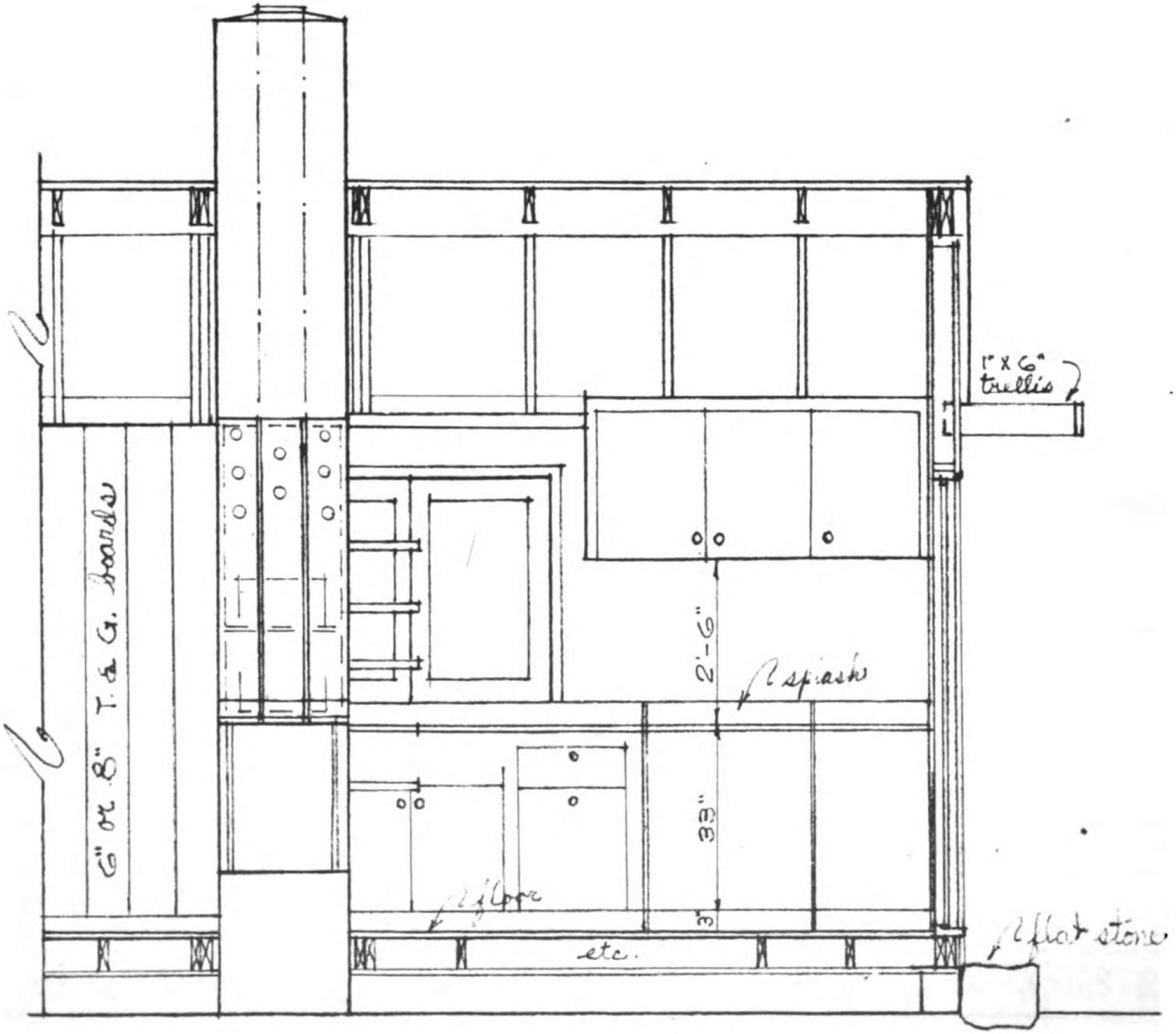
Kitchen and bath - 1st section

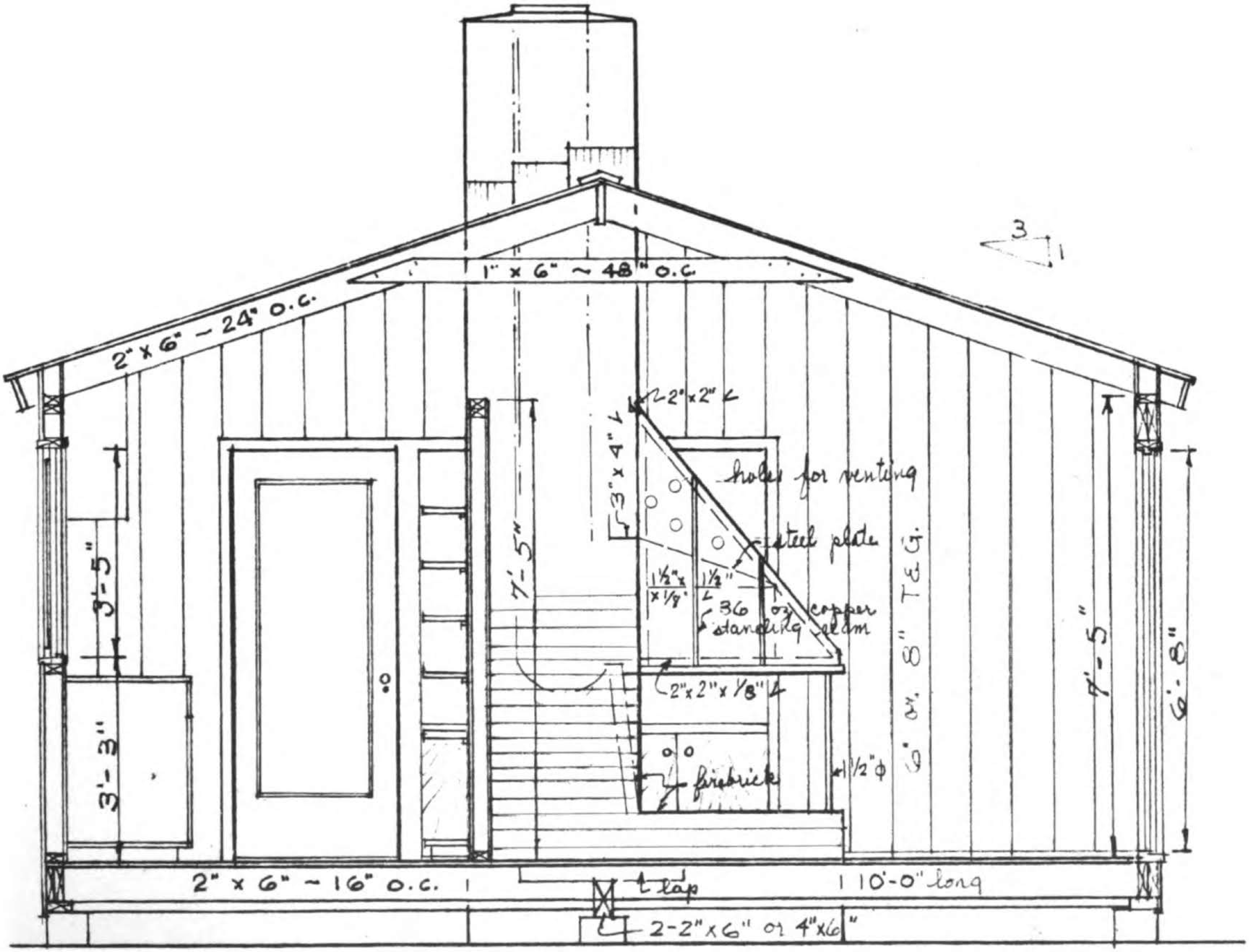


2 Bunk rooms - stage 3



Bunk room changed to bath


6" or 8" T. & G. boards
1" x 6" trellis
2'-6"
splash
33"
3"
floor
etc.
flat stone


3
1
2" x 6" — 24" O.C.
1" x 6" ~ 48" O.C.
2-2" x 2"
3" x 4"
holes for venting
steel plate
1½" x 1/8"
1½"
36 oz. copper standing seam
2" x 2" x 1/8"
firebrick
1½" φ
3'-5"
3'-3"
7'-5"
6" or 8" T & G
7'-5"
6'-8"
2" x 6" ~ 16" O.C.
lap
10'-0" long
2-2" x 6" or 4" x 6"

CONSTRUCTION OUTLINE (Core Unit Only)

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill. Fireplace foundation built of stone and poured concrete.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Now spike the outer header to the inner width. Nail down flooring. Install door and vent sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out wall sections A and C on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame other walls. Build fireplace except for copper hood, which should be installed when the house is nearly completed—only the metal framing goes up now.

Roof: Put roof rafters in place. Be sure to use collars as required. Lay roofing boards. Use either roll or shingle roofing material.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed at top, bottom, and at herringbone bridging.

Vents, Doors, and Other Openings: Follow details on preceding pages or in the last section of this book.

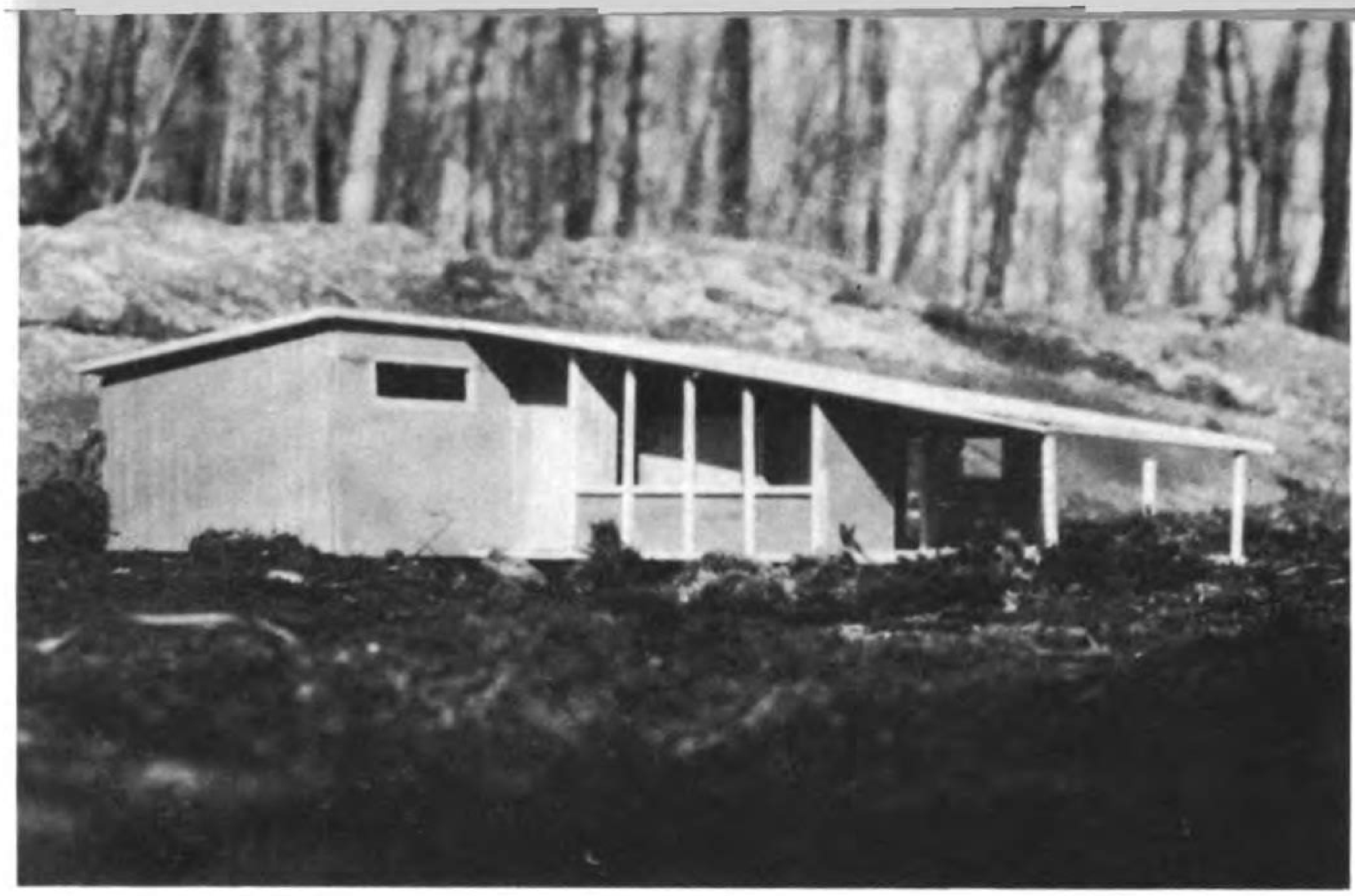
Insulation: Medium- or full-thickness Fiberglas or equivalent insulation stapled between roof rafters. Use medium thickness in side walls.

Finish interior as desired. Install plumbing and electrical work as convenient.

MATERIALS LIST (Core—First Stage)

Concrete for footings	1 cu. yd.
Block for piers	depends upon depth
11 anchor bolts	½ in. x 8 in.
2,500 brick for chimney	
4 lengths of terra cotta flue lining	
1 metal fireplace hood	
3 in. x 3 in. angle 2	4 ft. 8 in. 1 2 ft. long
8 2 x 4 8 ft. long	side walls
24 2 x 4 10 ft. long	side walls and sole
24 2 x 4 14 ft. long	side walls (to be cut)
4 2 x 4 18 ft. long	sole and header
76 2 x 6 10 ft. long	header, sill, rafter, girder, joists
22 2 x 6 18 ft. long	sill (cut)
1 2 x 8 18 ft. long	ridge piece

150 lineal ft. of 1 x 6 fascia, trellis (except for Elev. C), collar
216 lineal ft. of window bead
78 lineal ft. of 1 x 2 doorstop
3 1½ in. round dowels, 8 ft. long
520 board ft. of roofing material
490 board ft. of flooring material
700 board ft. of siding
800 board ft. of interior finish
400 sq. ft. of ceiling finish, plus waste
1,000 sq. ft. of medium-thick insulation
4 squares of roofing material
4 2 ft. 6 in. x 6 ft. 8 in. exterior single-panel doors and screen doors
1 3 ft. x 6 ft. 8 in. exterior single-panel door and screen
1 2 ft. 6 in. x 6 ft. 8 in. interior door
1 casement window (about 4 ft. x 3 ft. 6 in.)
1 cellar sash (about 16 in. x 33 in.)
3 sheets of waterproof plywood 4 ft. x 8 ft. x ⅝ or ¾ in.
Glass for fixed panes
Electric wiring: 110-220 volt, 3-wire system
Plumbing: piping, pump, tank, water heater, seat, basin, shower, sink
Septic tank
Range or stove
Refrigerator

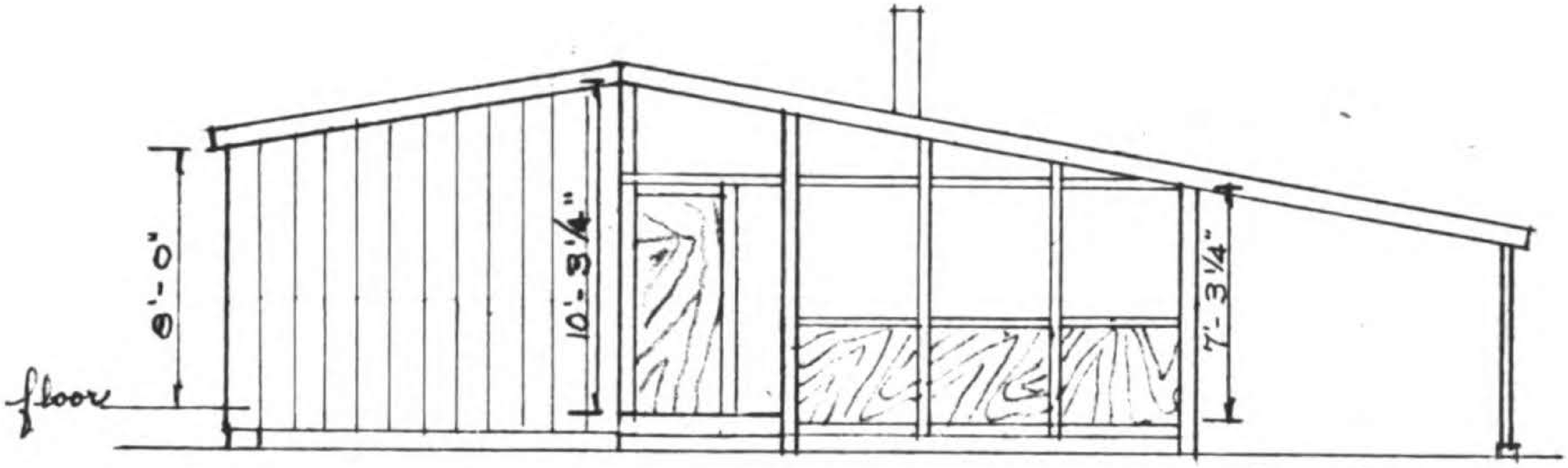


PLAN 10

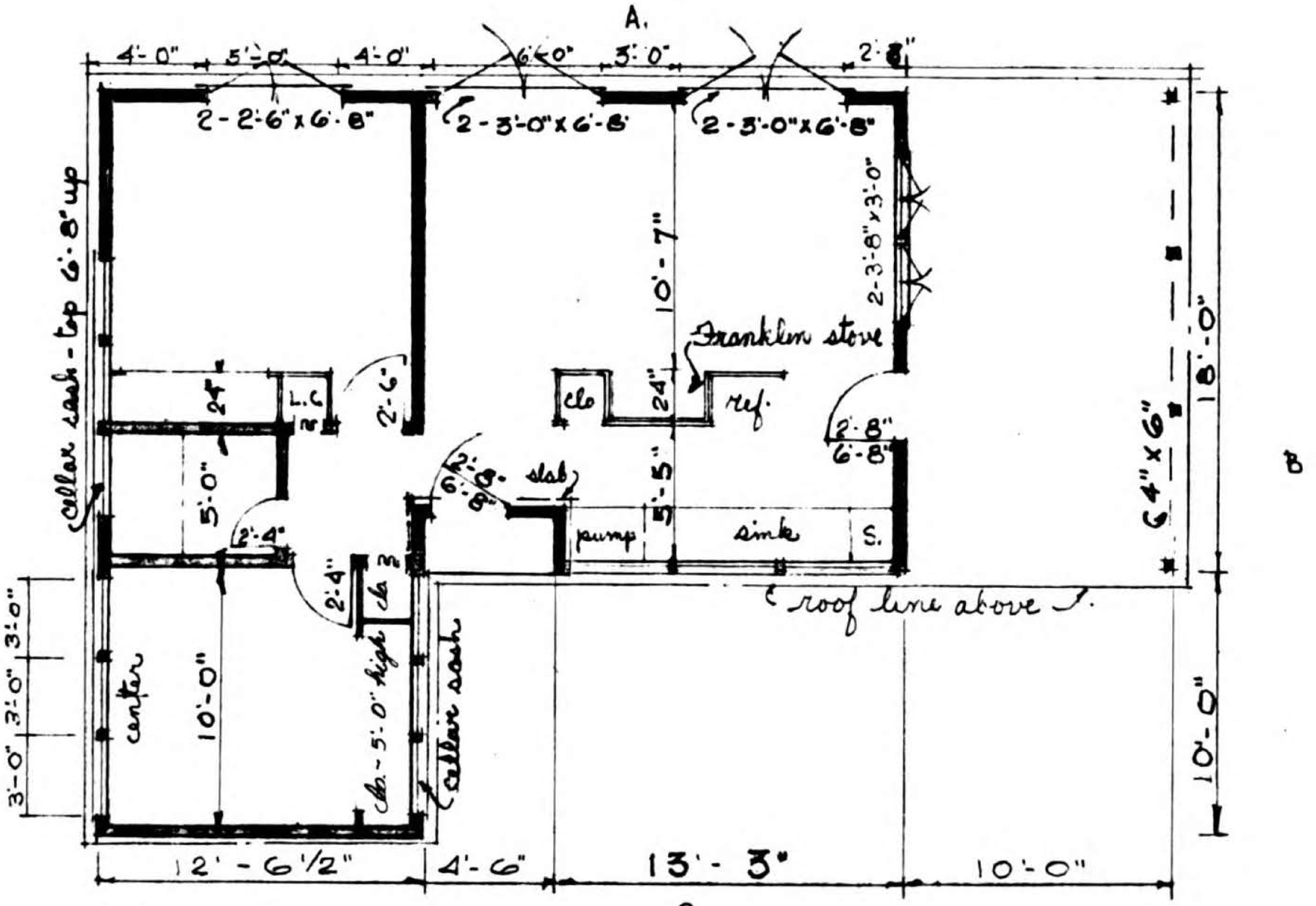
For those who like a little more formal cottage, this unit would be ideal. All the areas are well separated. Some of you might like to build this as a permanent home. It could be done by adding a full foundation and installing proper heating. There is no fireplace in this cottage, but I have indicated where you might put a Franklin stove.

You'll find that the kitchen is particularly pleasant. The glass running up to the actual roof line will make this area seem very bright and cheerful. By modifying the kitchen equipment layout slightly, you can install a washing machine.

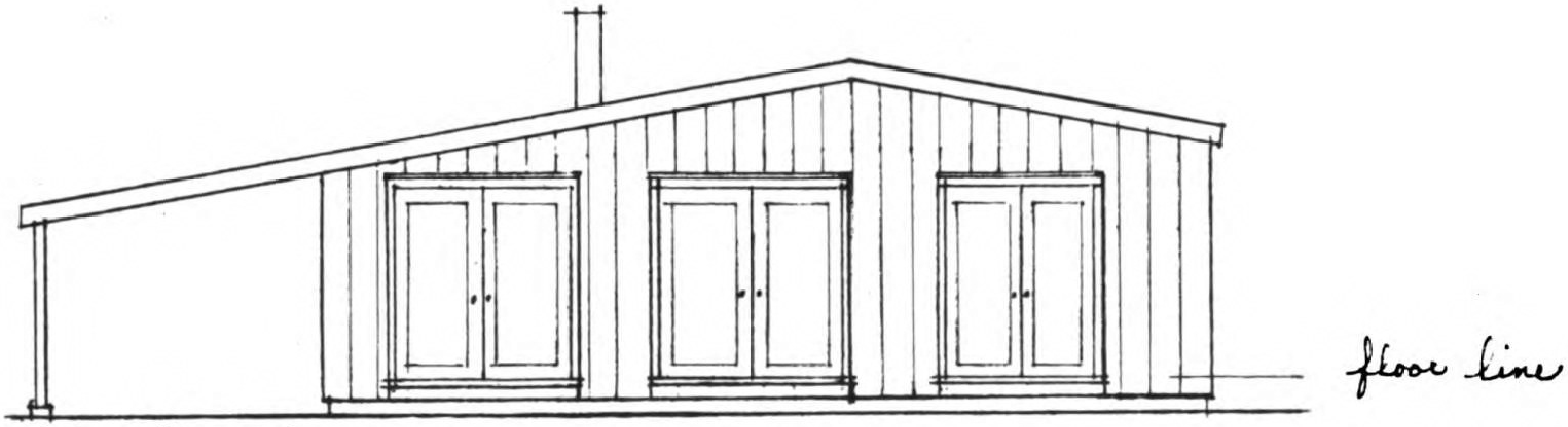
The car port, as in some of the other camps, can be enclosed with screening to make a porch. You could pave this area without cement by laying about four inches of sand. Put flagstone on top of the sand. Then lift each flagstone and scoop out a handful of sand from the center. You'll find that the stones will stay in place and will not heave during the spring thaw.



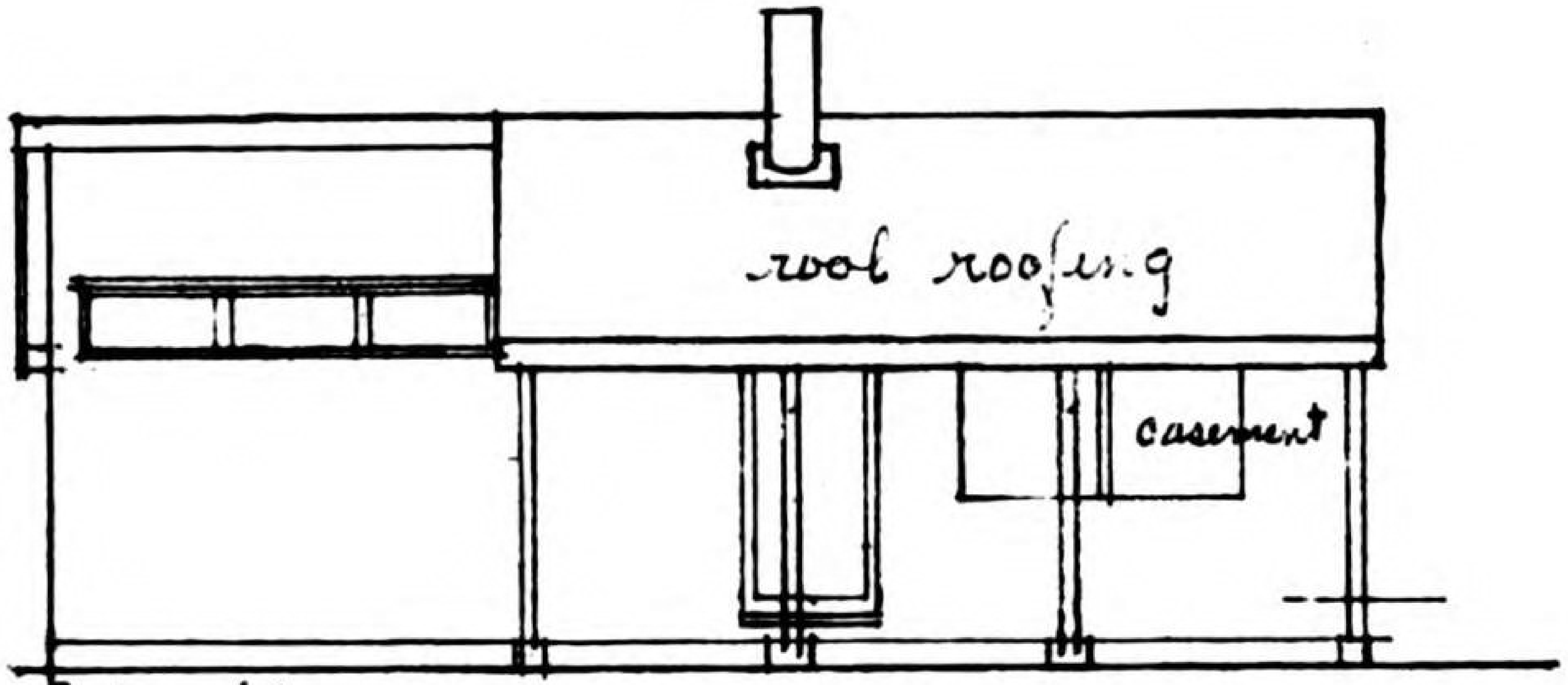
Elevation C.



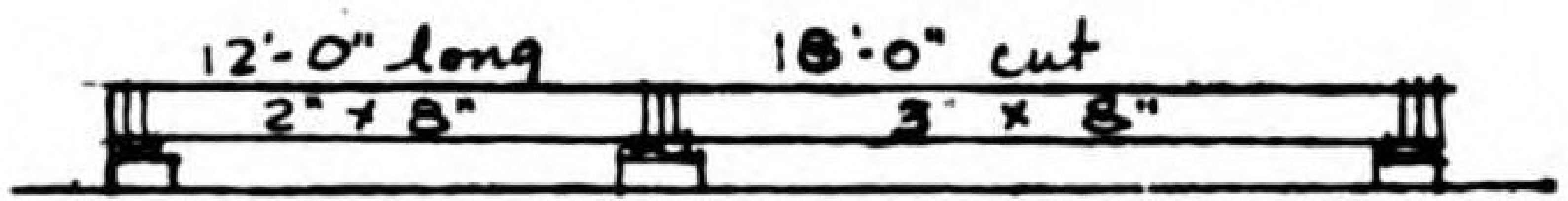
Plan



Elevation A.



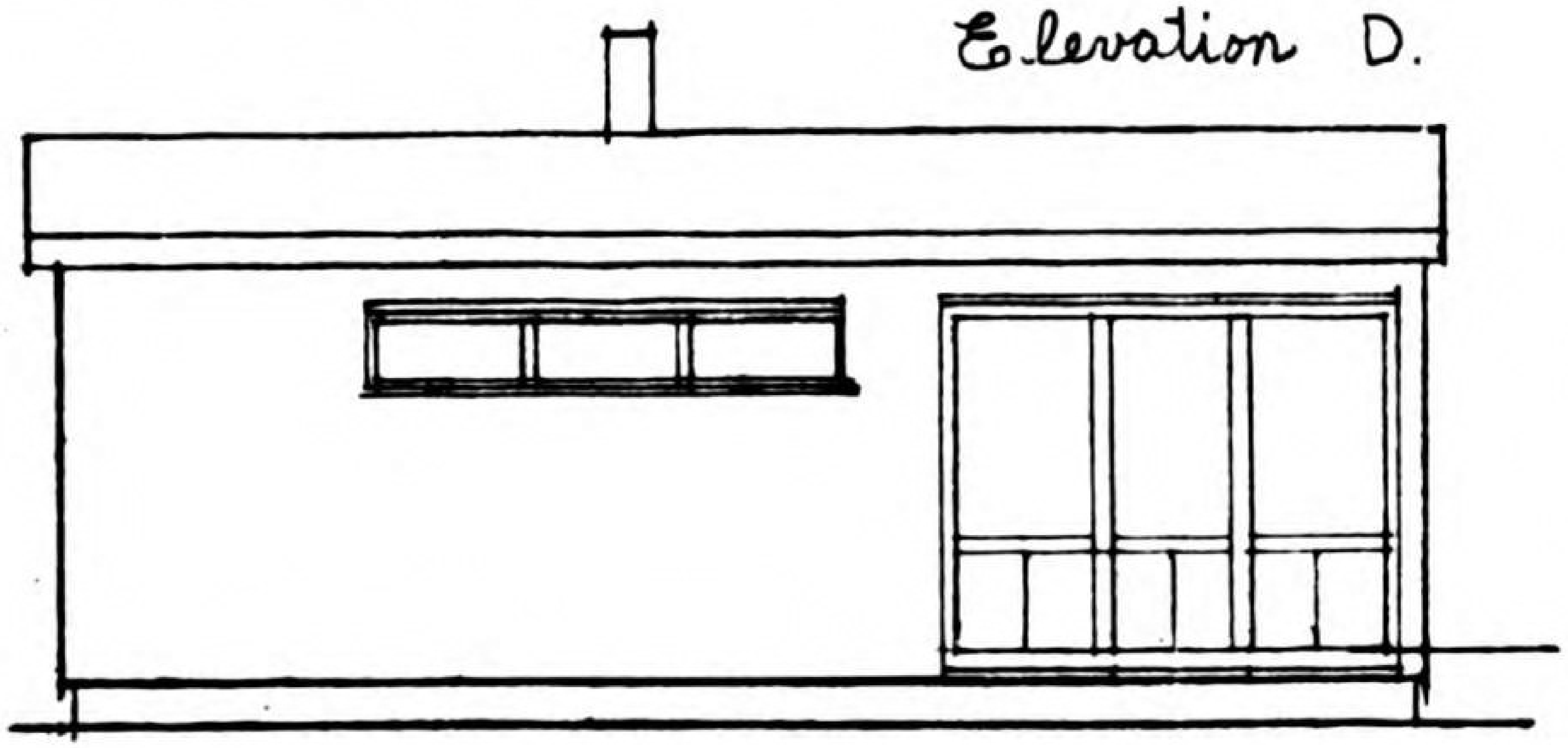
Elevation B.

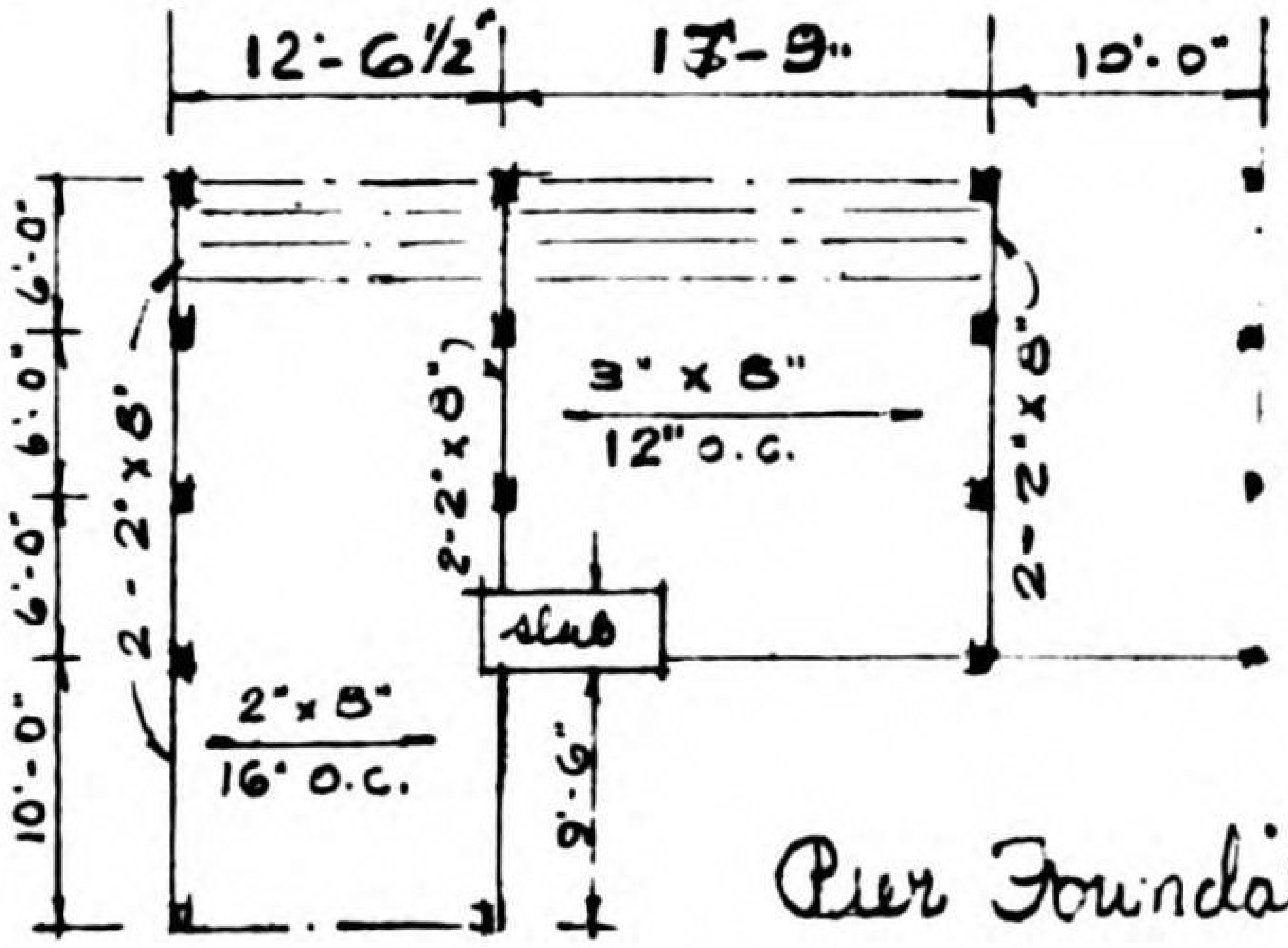


floor section

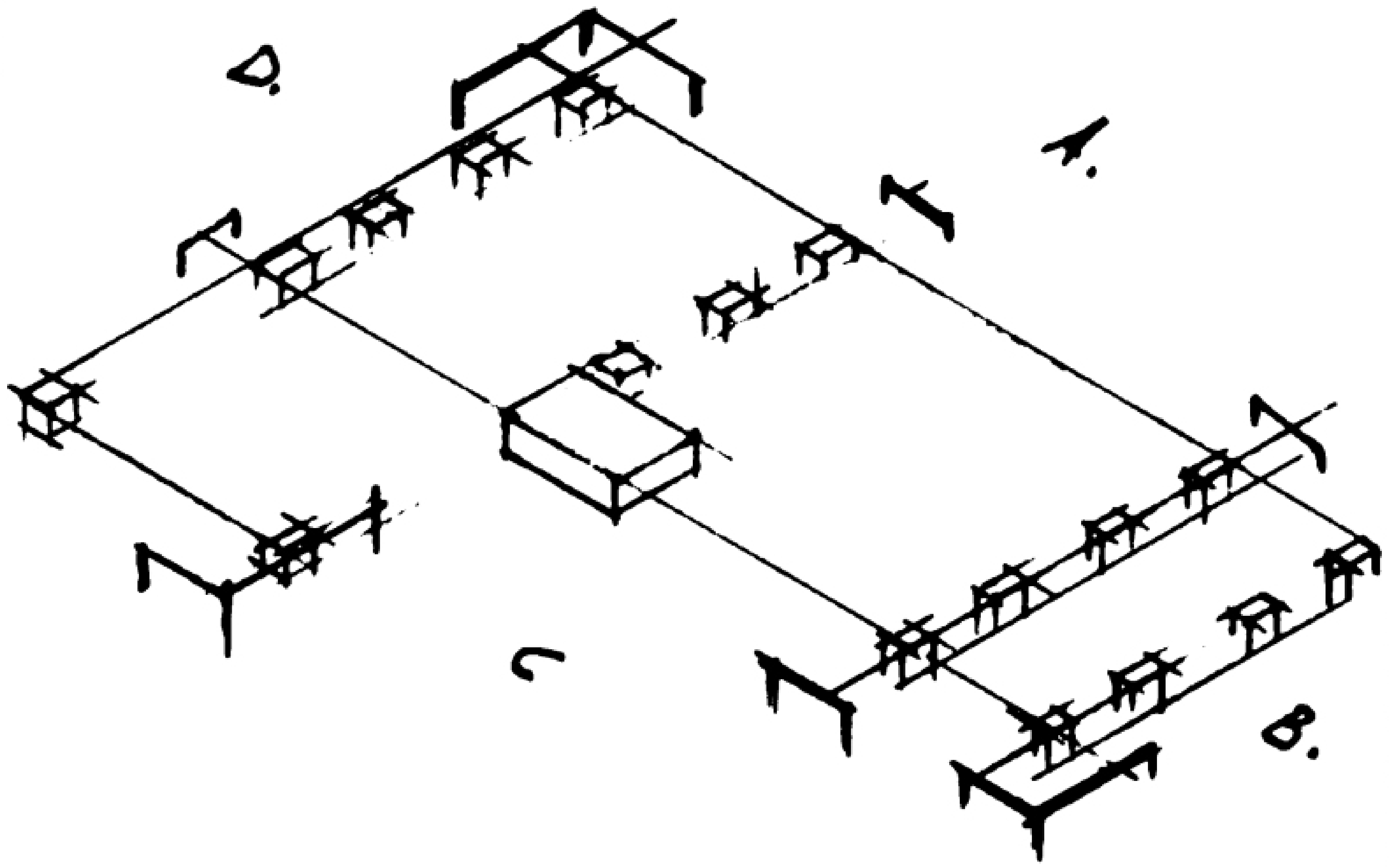
18'-0" lengths will have to be cut at ends to fit 18'-0" overall dimension

Elevation D.

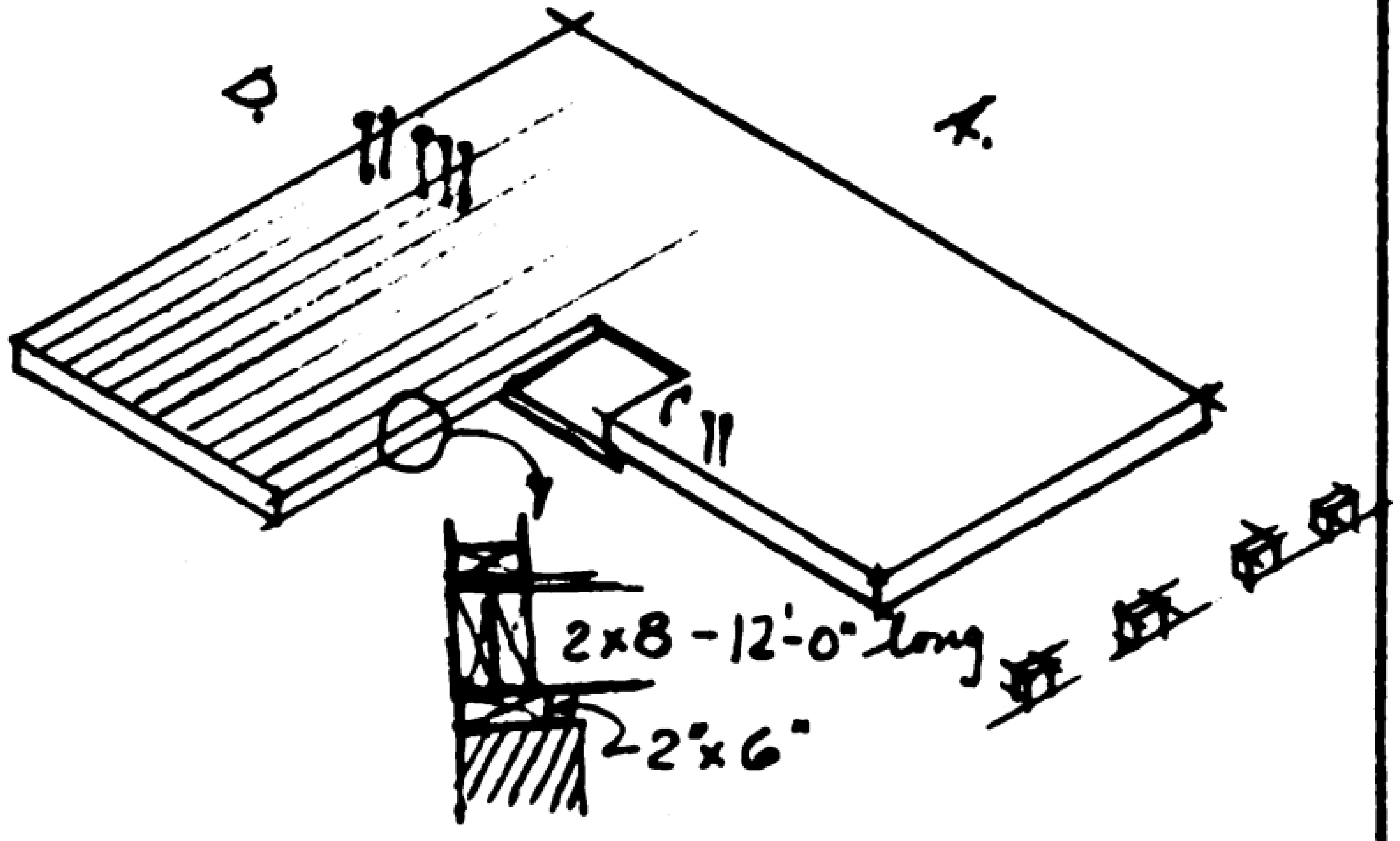




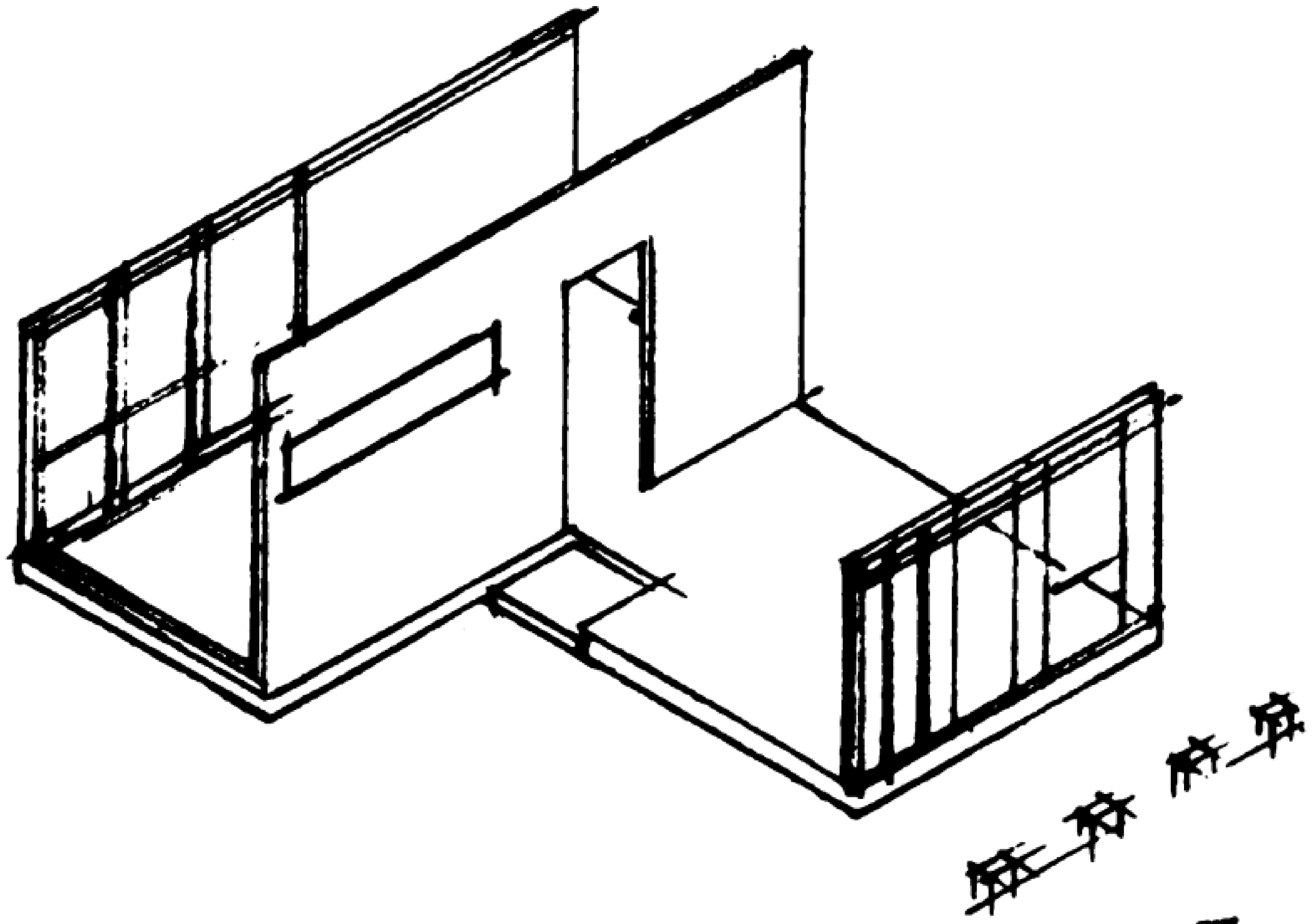
Pier Foundation



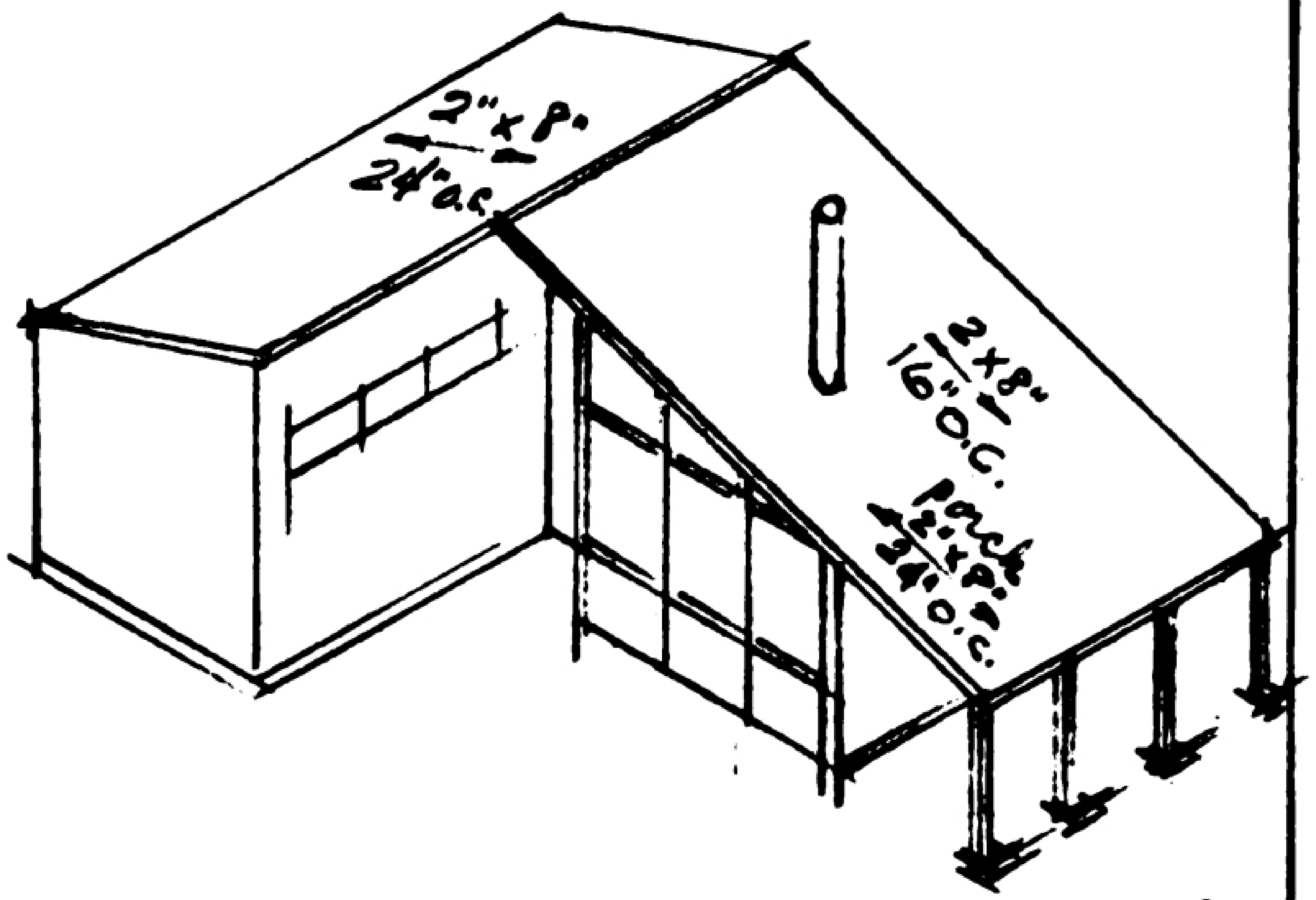
Peer foundation 1.



platform 2



3.



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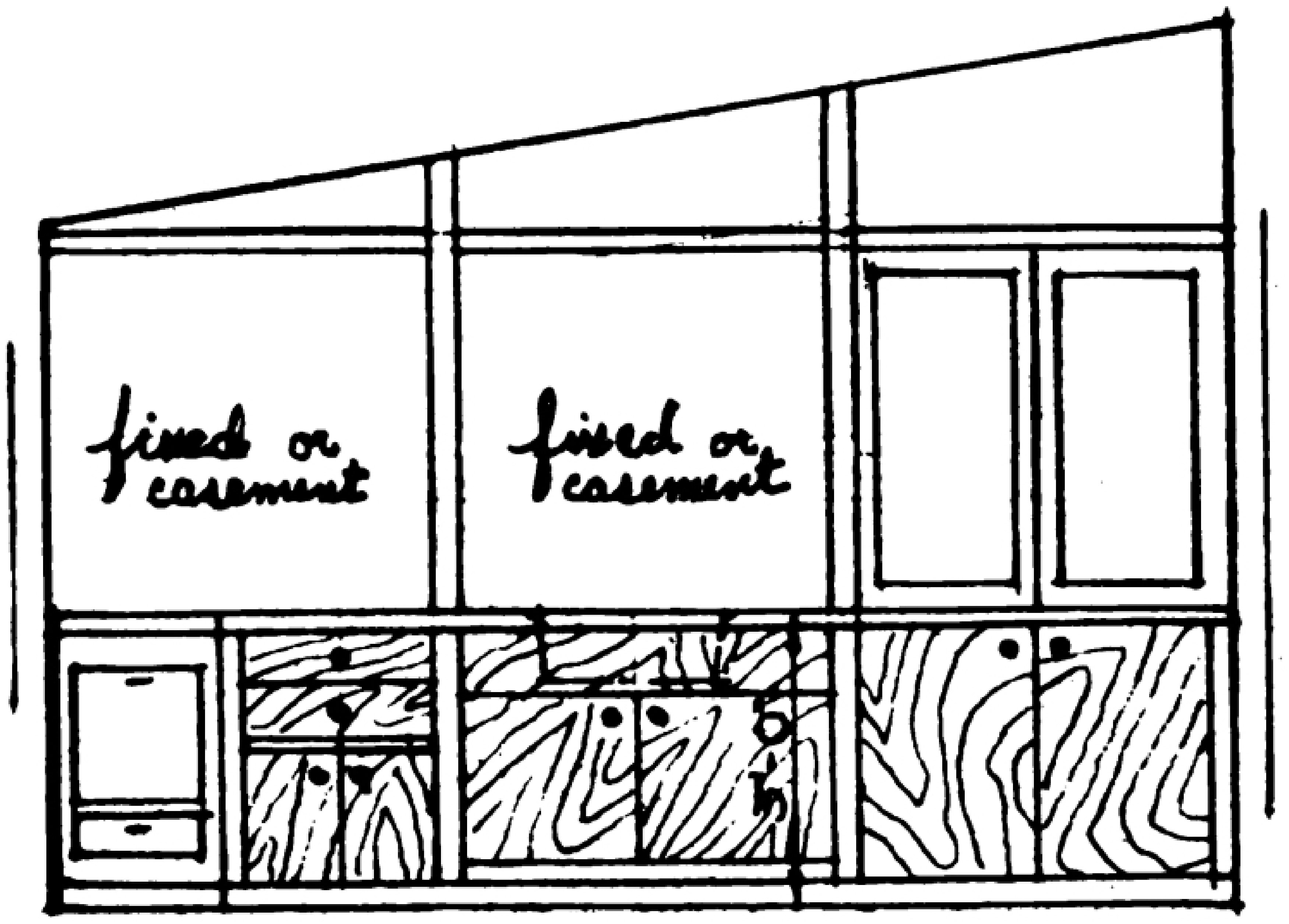
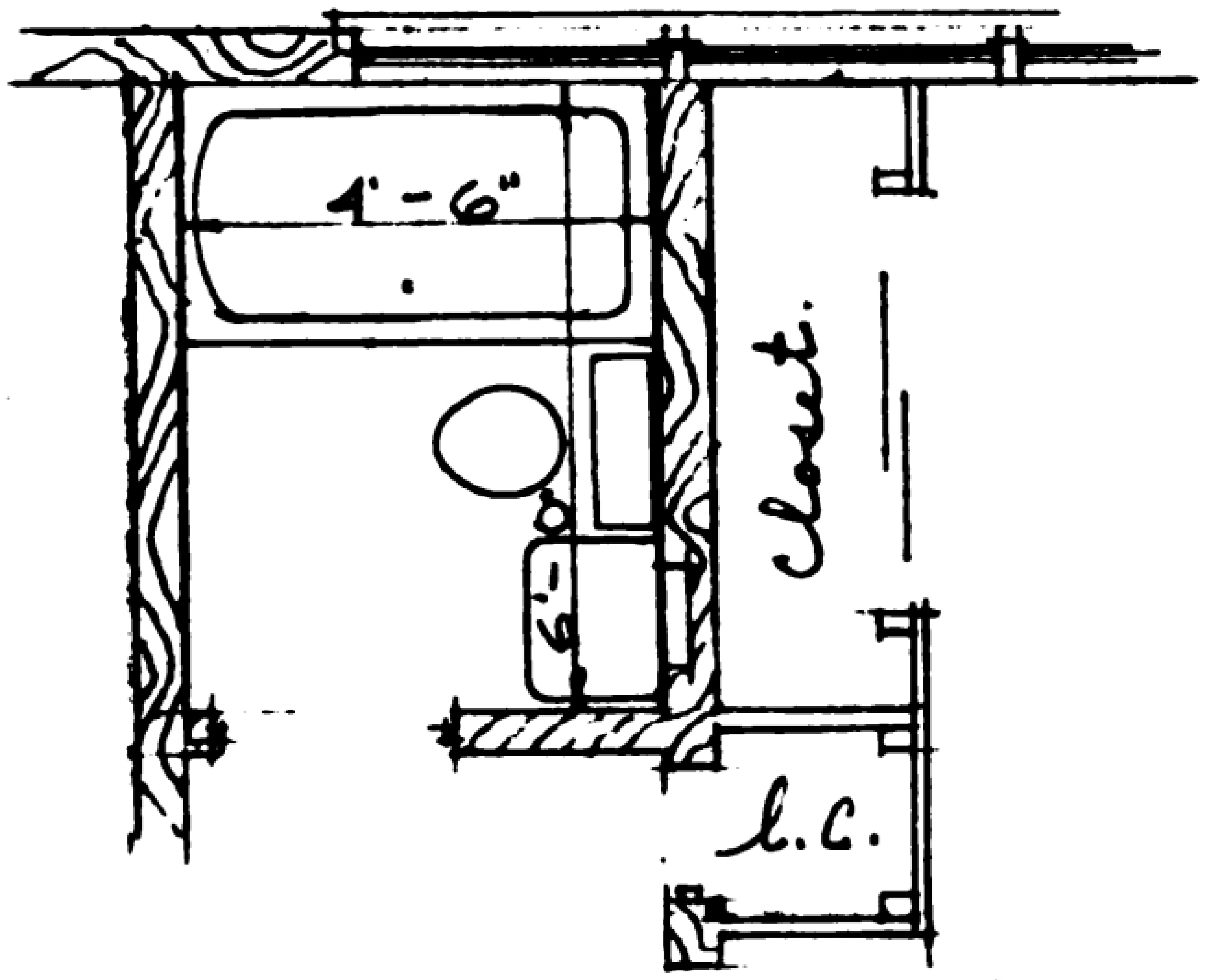
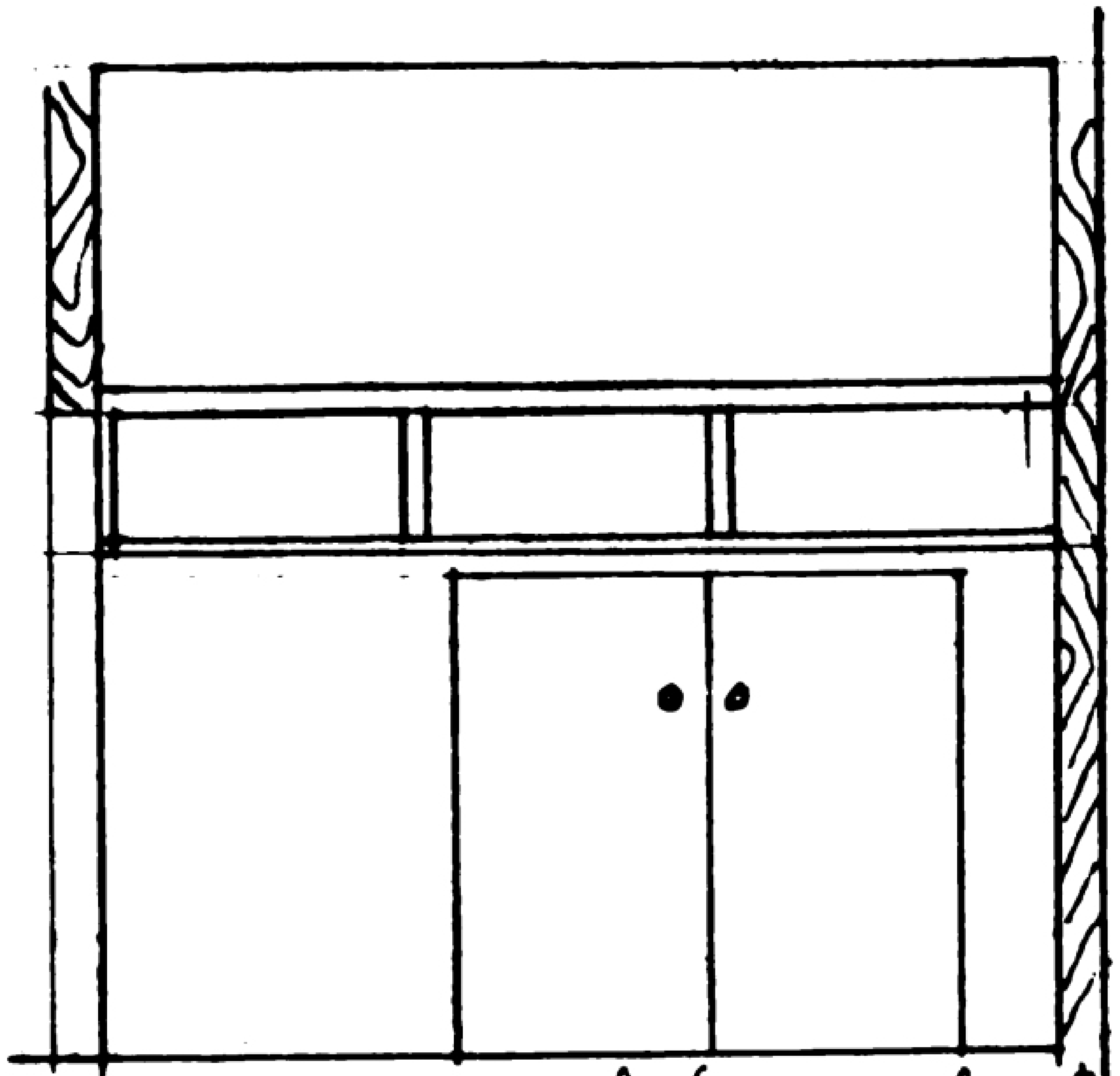


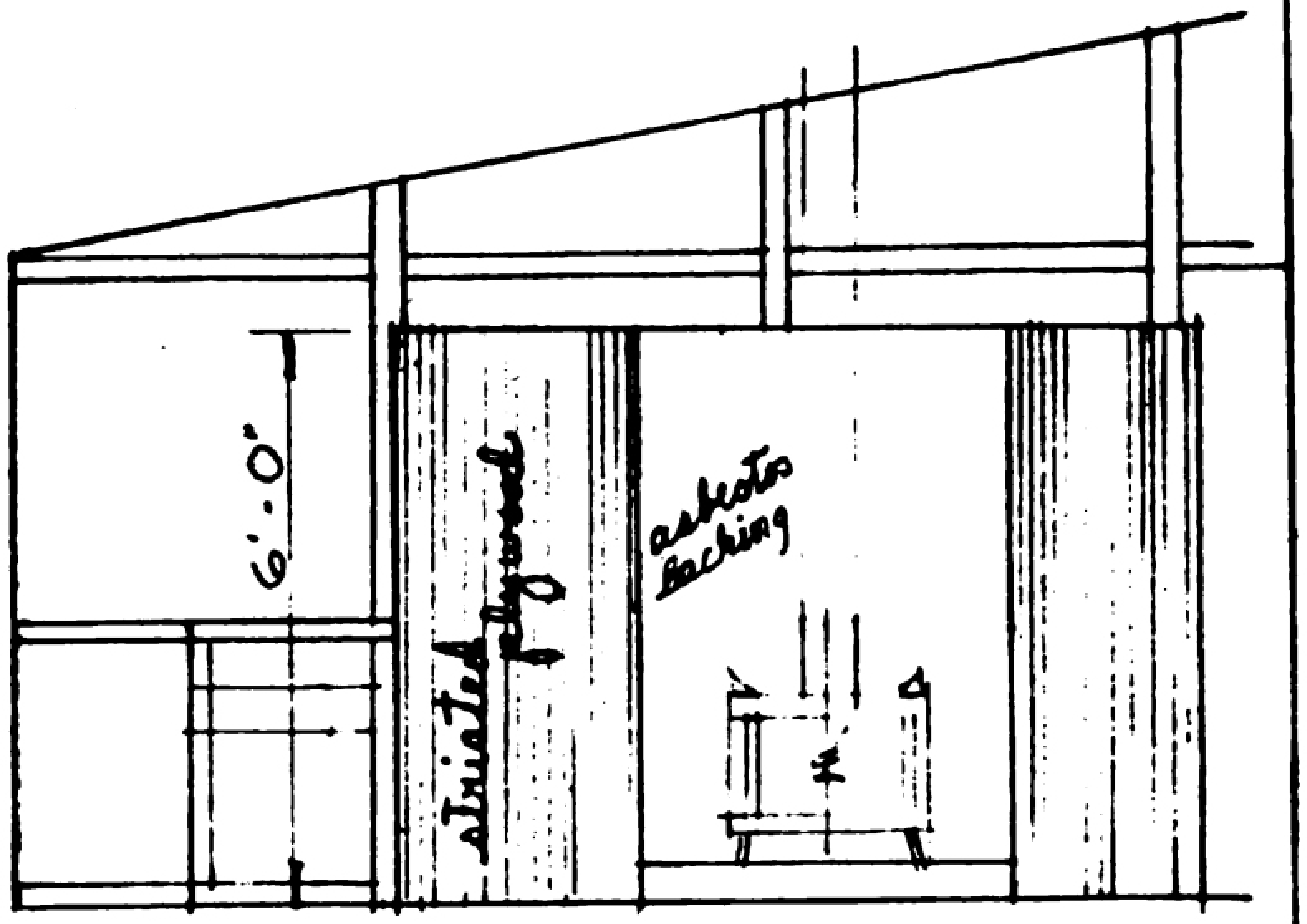
kitchen 5.



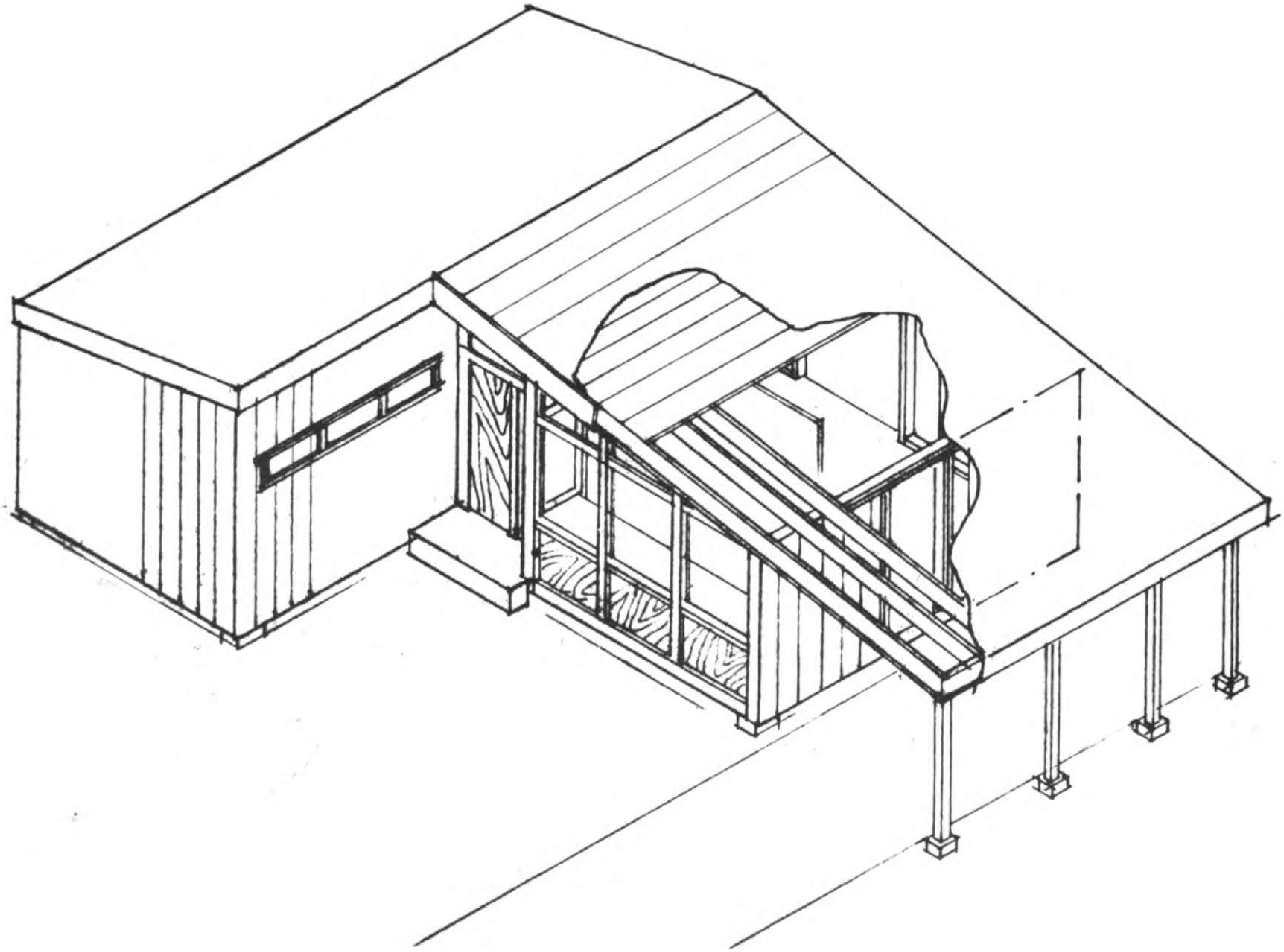
bath 6.

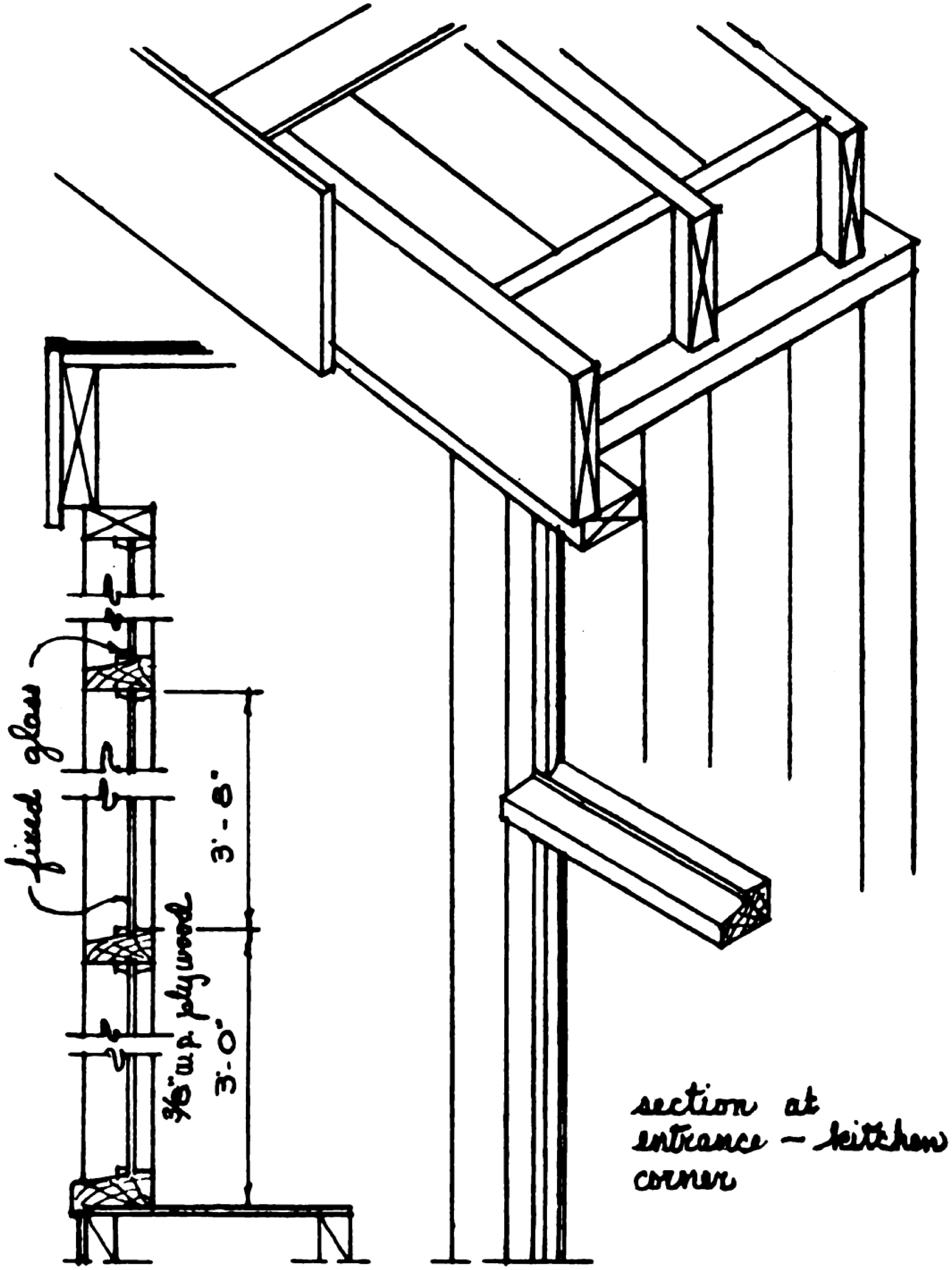


bedroom closet 7.

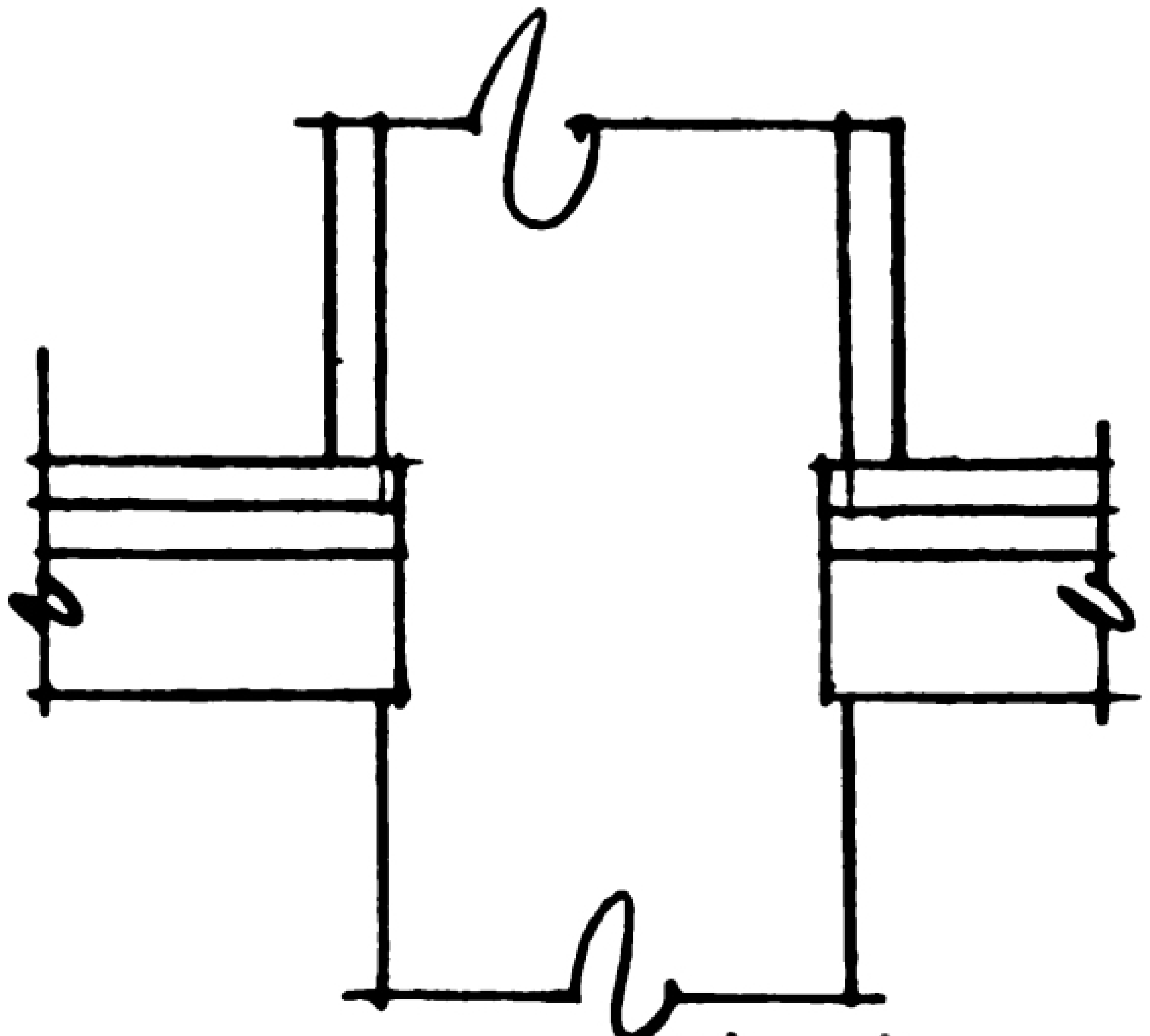


living room side of kitchen wall. 8.

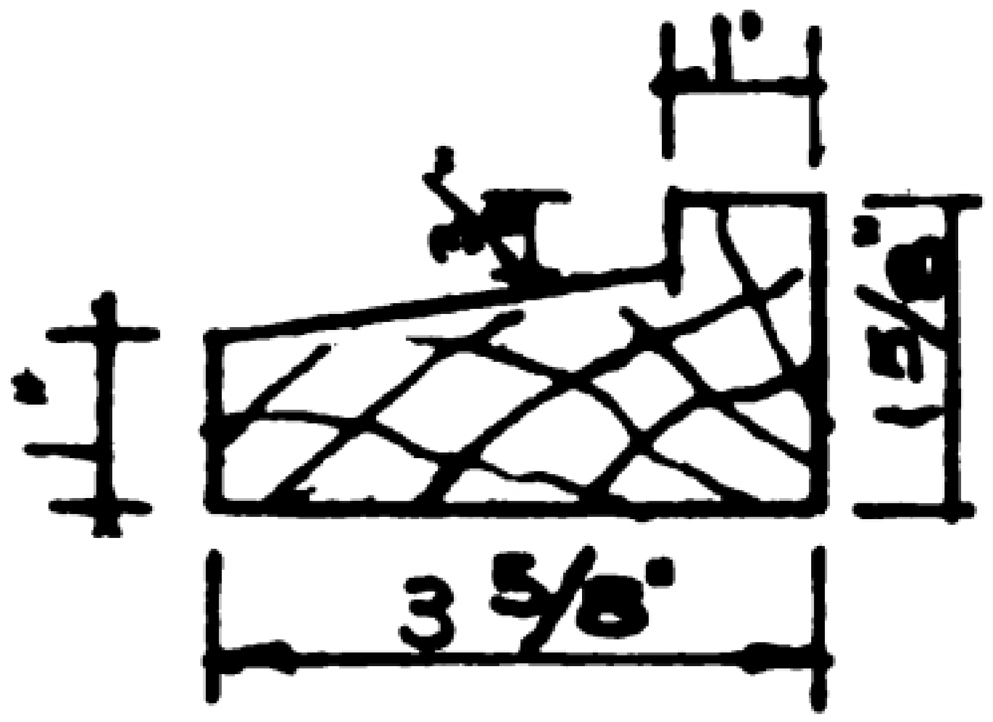




section at entrance – kitchen corner

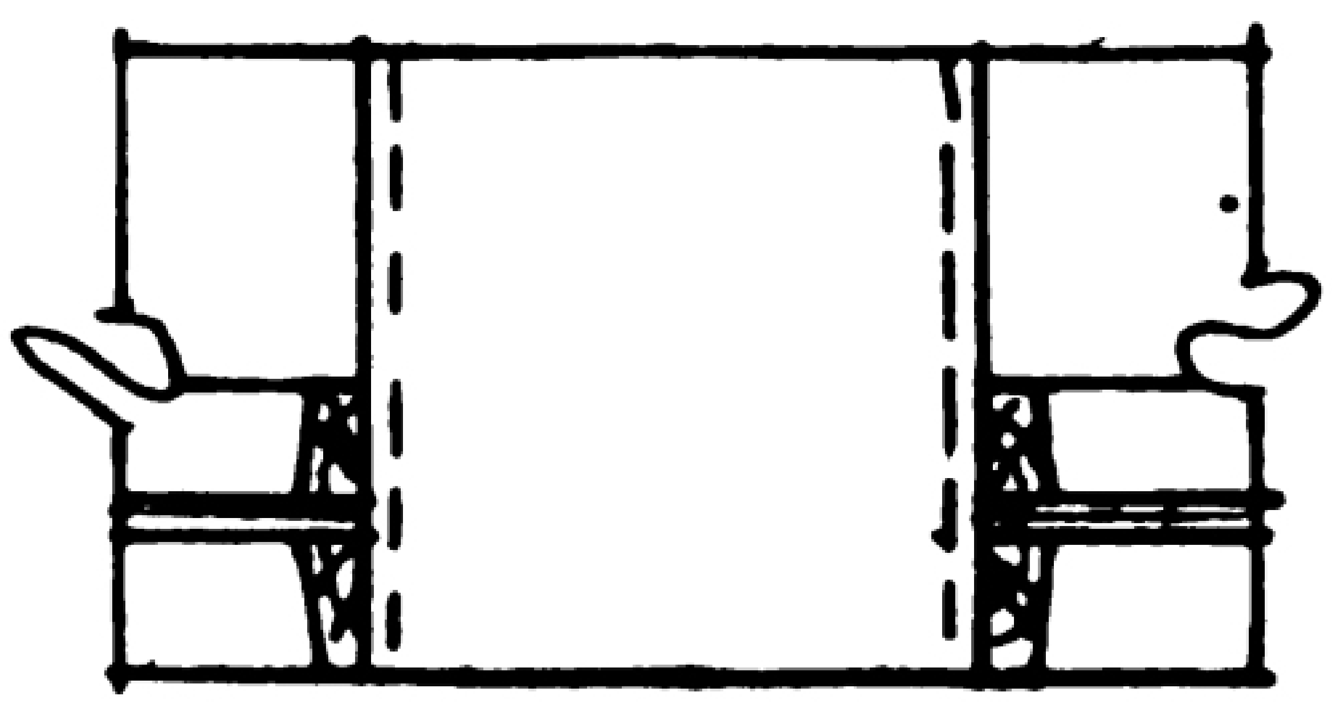


Elevation



Section

Plan



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CONSTRUCTION OUTLINE

Foundation: Piers made of 8-by-8-by-16-inch block. Top block poured solid and bolts put into place to receive sill. Entrance slab made of poured concrete and stone.

Flooring: Sills drilled to take bolts and then placed on pier foundation. Spike inner width of header to sill. Lay out floor joists and spike them to inner header. Spike outer header to the inner width. Nail down flooring. Install door sills and lay sole around outer edge and under partitions.

Wall Framing: Lay out walls B and D and center wall on the floor. When completed, tip into place and use temporary bracing to hold in vertical position. Frame other walls.

Roof: Put up roof joists and lay roofing boards. Use roll roofing only. Follow directions in previous sections of this book and on roll itself.

Side-wall Finish: Use 1-by-6 or 1-by-8 tongue-and-groove siding nailed at top, bottom, and at herringbone bracing.

Doors and Other Openings: Follow details on preceding pages or in the last section of this book.

Insulation: Medium- or full-thickness Fiberglas or other insulation stapled between roof joists. Use medium thickness in side walls.

Finish interior as desired. Install mechanical and electrical work as required.

MATERIALS LIST

Concrete for footings	¾ cu. yd.
Blocks for piers	depends upon depth
14 anchor bolts	½ in. x 8 in.
74 2 x 4 10 ft. long	walls, partitions, headers, sills, sole
8 2 x 4 14 ft. long	living-room–porch wall (cut)
11 2 x 4 16 ft. long	Elev. D
18 2 x 4 18 ft. long	sole, header
2 2 x 6 10 ft. long	sills
5 2 x 6 18 ft. long	sills (cut)
14 2 x 8 10 ft. long	header (girder)
24 2 x 8 12 ft. long	floor joist
22 2 x 8 14 ft. long	bedroom roof joist
22 2 x 8 18 ft. long	living-room roof joists, headers, and girders
20 3 x 8 18 ft. long	floor joists
3 4 x 4 10 ft. long	kitchen window wall
2 4 x 4 14 ft. long	porch posts (cut)
1 4 x 6 18 ft. long	porch lintel

160 lineal ft. of 1 x 6 fascia board
200 lineal ft. of window bead
900 board ft. of flooring
1,200 board ft. of roofing
1,000 board ft. of exterior siding
1,500 board ft. of interior finish
720 sq. ft. of ceiling material (plus waste)
1,600 sq. ft. of medium-thick insulation
2,800 sq. ft. of roofing material (3-ply) and mastic
2 2 ft. 8 in. x 6 ft. 8 in. exterior doors
1 pair 2 ft. 6 in. x 6 ft. 8 in. exterior doors
2 pair 3 ft. x 6 ft. 8 in. exterior doors
2 2 ft. 4 in. x 6 ft. 6 in. interior doors
1 2 ft. 6 in. x 6 ft. 6 in. interior door
2 2 ft. 8 in. x 6 ft. 8 in. screen doors
1 pair 2 ft. 6 in. x 6 ft. 8 in. screen door
2 pair 3 ft. x 6 ft. 8 in. screen door
6 sheets 4 ft. x 8 ft. x ¾ in. waterproof plywood
6 cellar sash (about 16 in. x 33 in.)
2 casement windows 3 ft. 8 in. x 3 ft.
Electric wiring: 110-220 volt, 3-wire system
Plumbing: piping, pump, tank, water heater, seat, basin, tub, sink
Septic tank
Range
Refrigerator

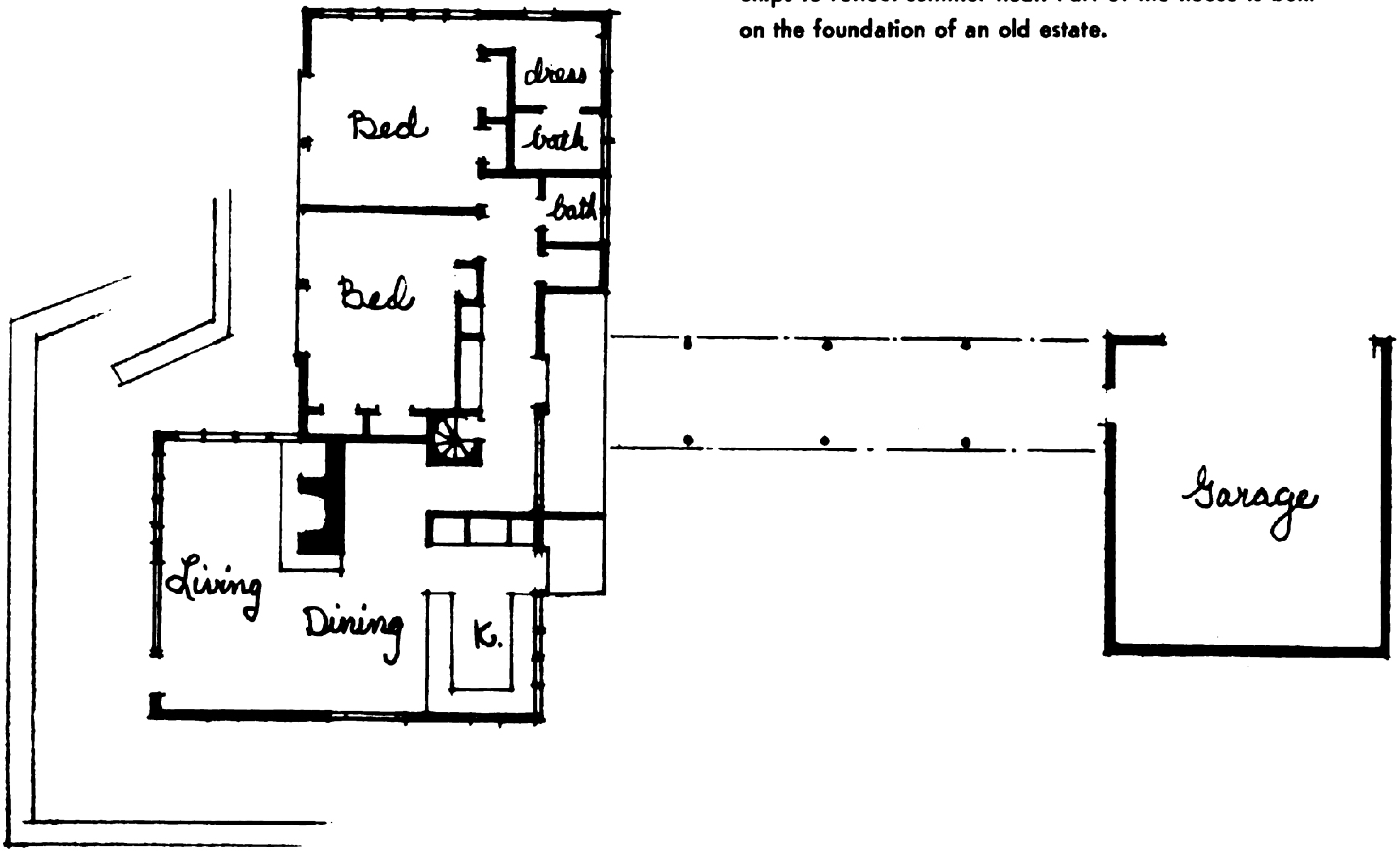
PORTFOLIO OF COTTAGES

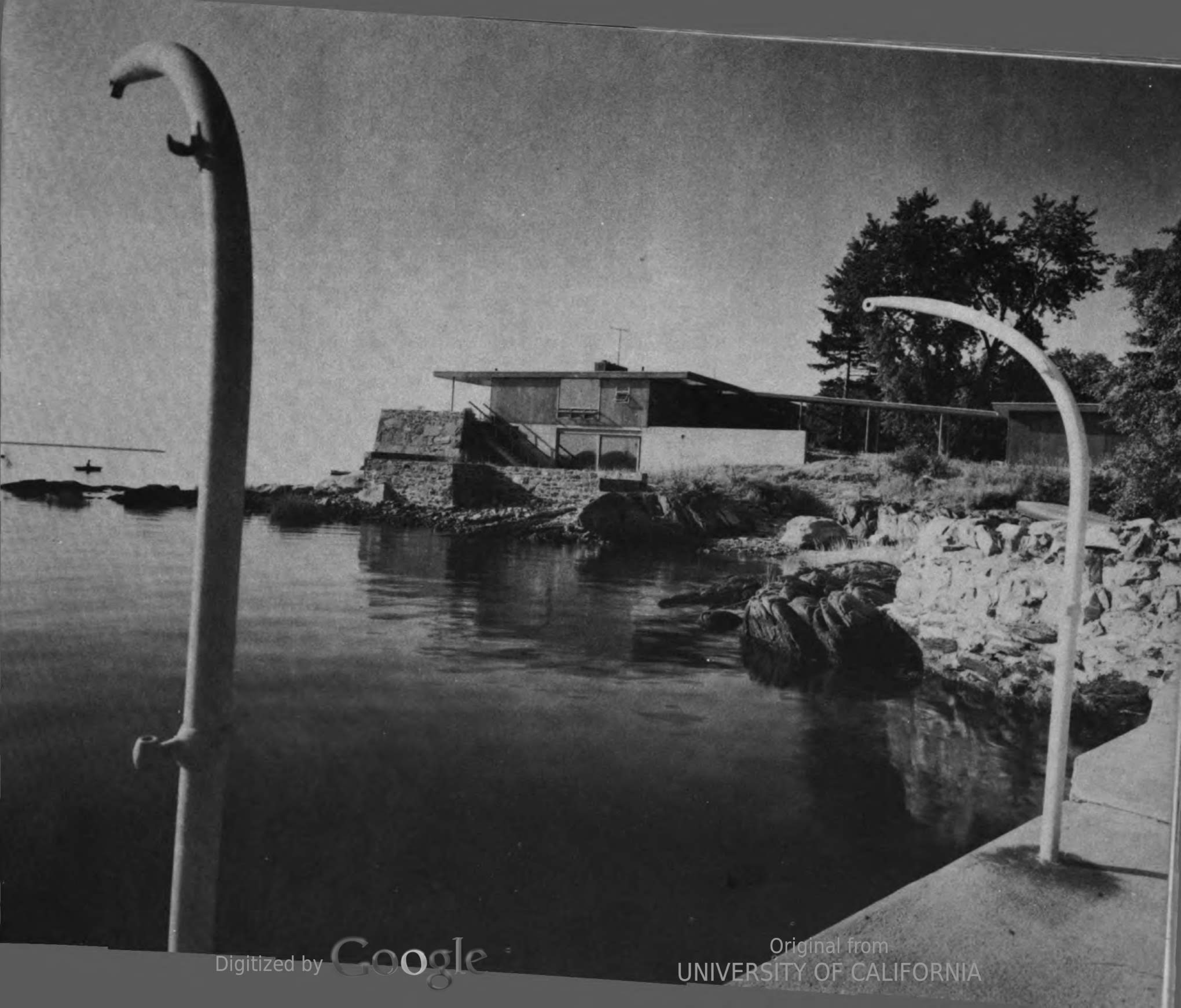
The cottages in this section have been designed by architects for specific clients. While they are more elaborate than the plans in the preceding pages, they do suggest ideas that you may want to include in your own unit.

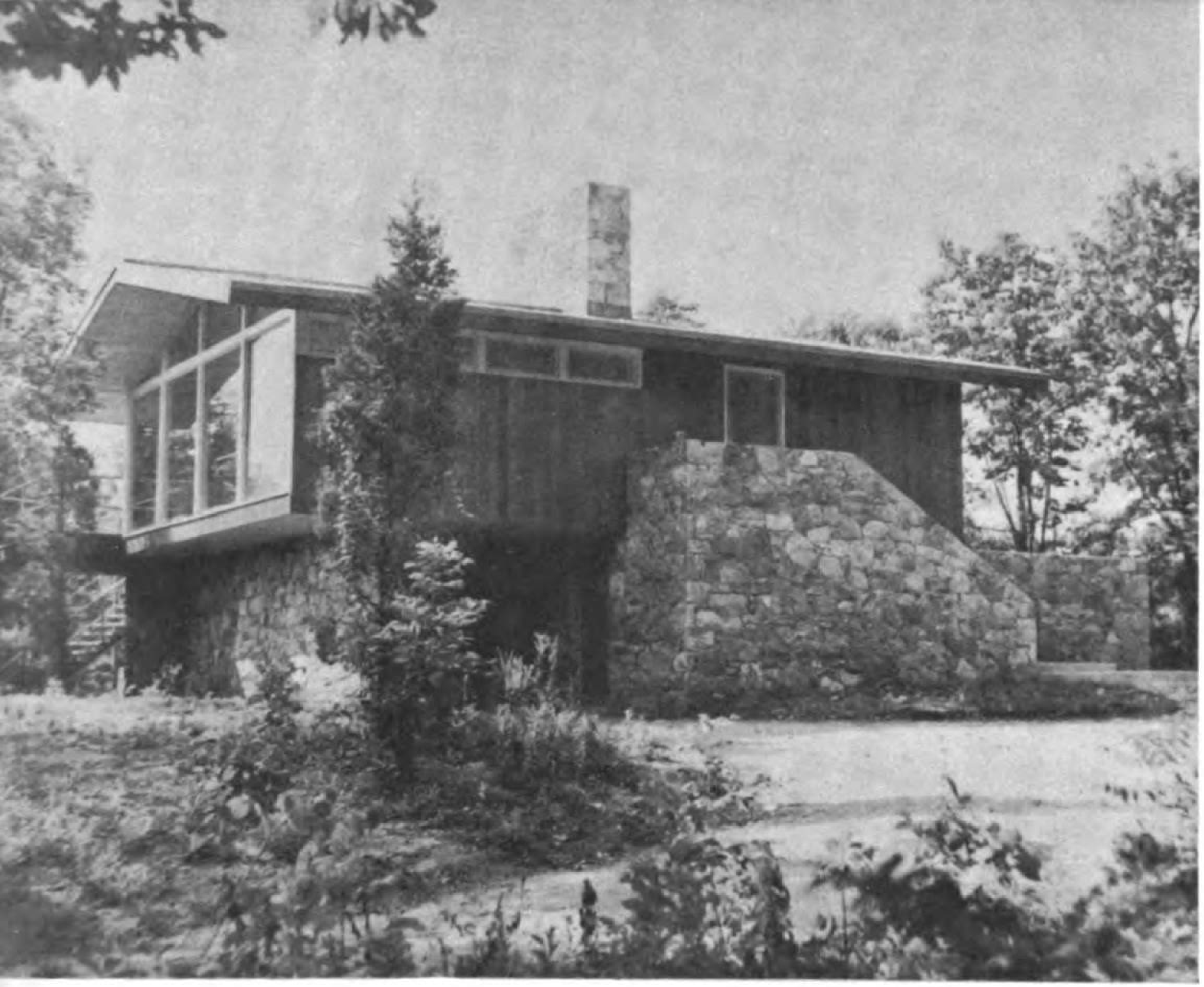
Notice particularly how windows, terraces, and porches have been related to the plan. Outdoor living and the relationship of indoor-outdoor areas is particularly important in cottages.

SUMMER HOME FOR MR. AND MRS. HAMILTON CHASE
OLD GREENWICH, CONNECTICUT
SHERWOOD, MILLS & SMITH, ARCHITECTS

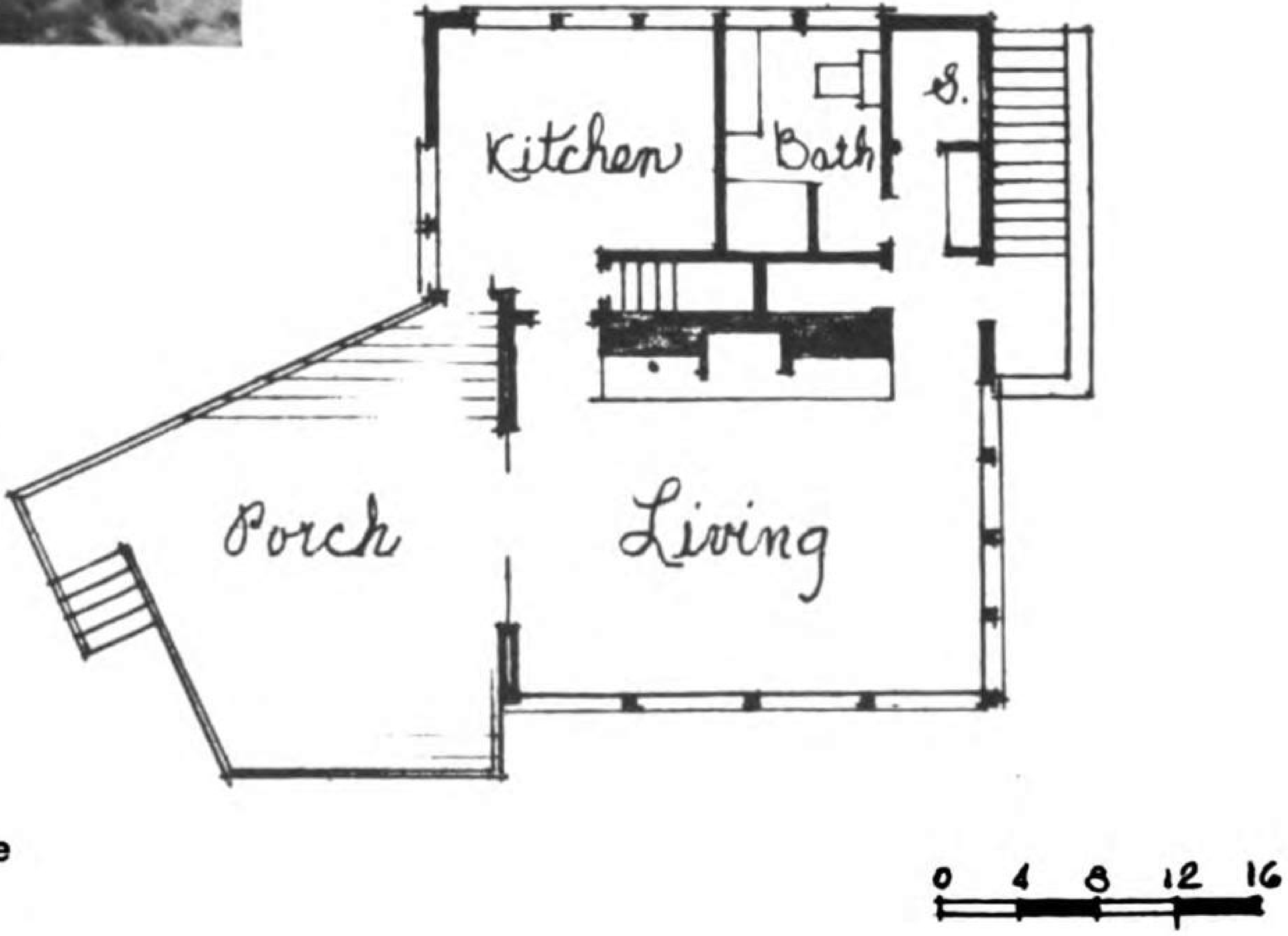
Located on a rock ledge overlooking Long Island Sound to the east and a small harbor to the north, this house had its large glass areas dictated by the spectacular view. The house is of hurricane-braced construction throughout. The exterior and some of the interior finish is mahogany plywood. The flat roof is covered with white marble chips to reflect summer heat. Part of the house is built on the foundation of an old estate.





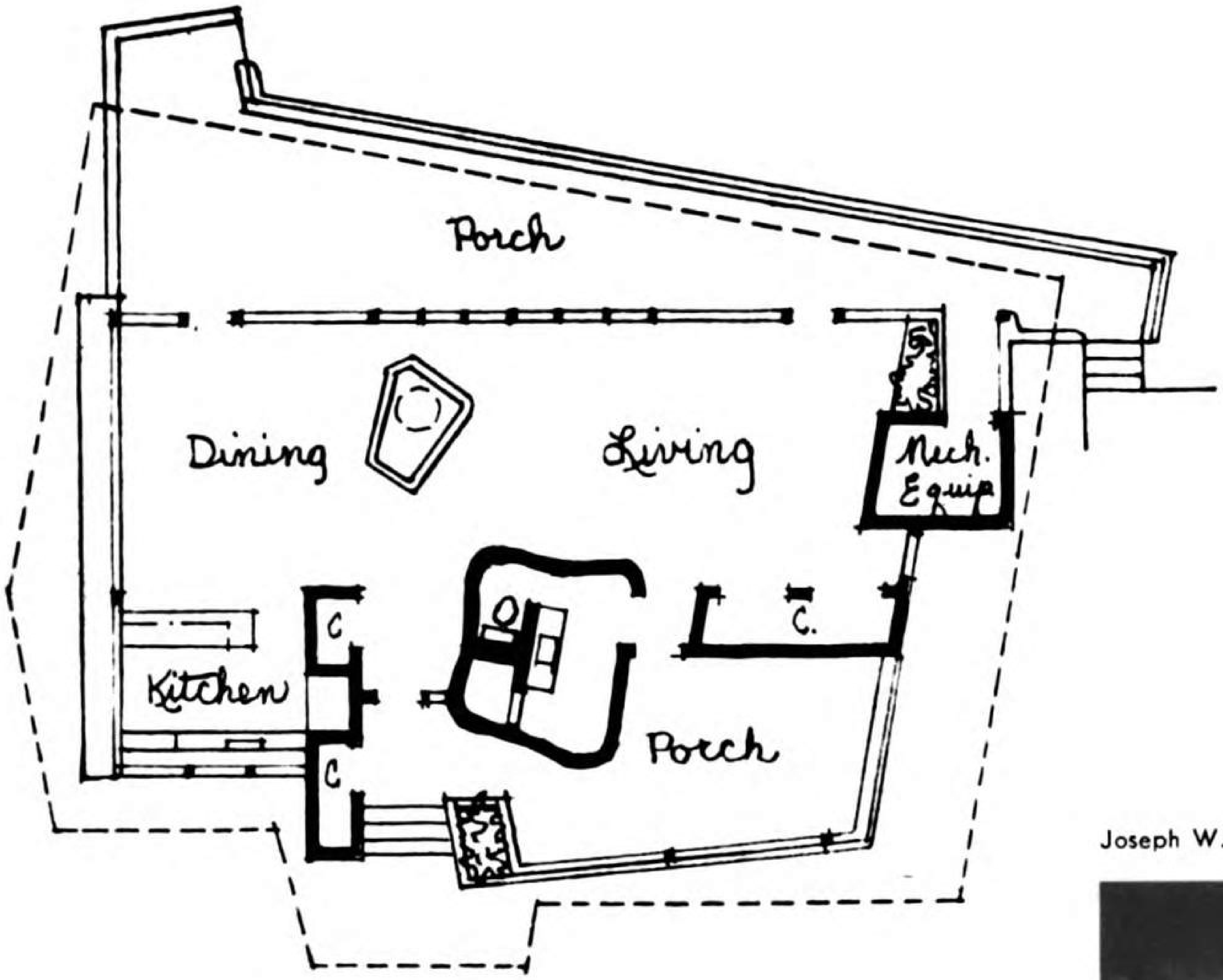


CONNECTICUT WEEK-END HOUSE FOR A. VAN HORN
WESTPORT, CONNECTICUT
SHERWOOD, MILLS AND SMITH, ARCHITECTS



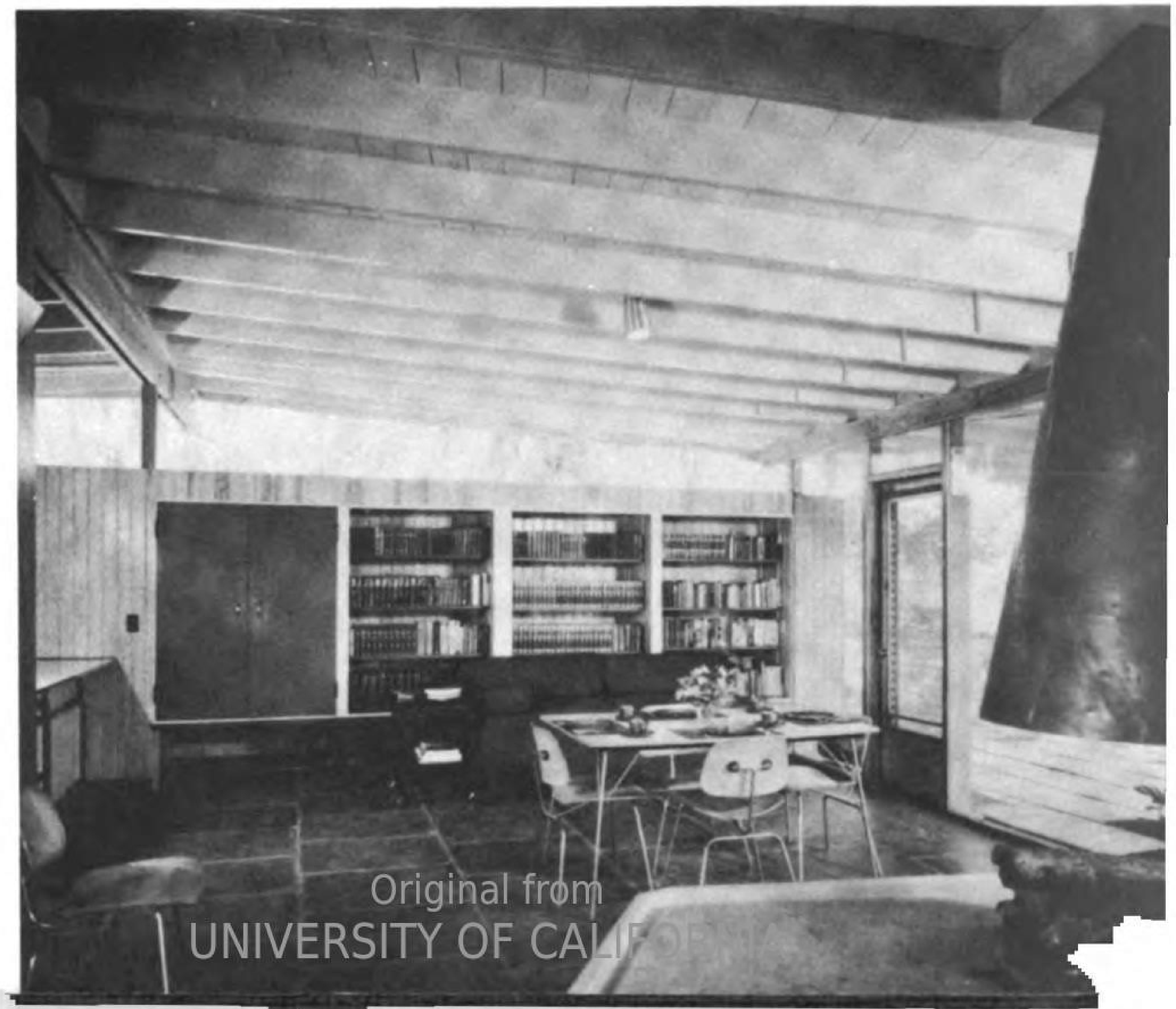
The living and terrace areas of this week-end house are raised above the grade in order to take advantage of a beautiful eastern view—a feature not possible from grade level. The living room serves as a sleeping area during week ends by use of studio couches. There is a pass through between the terrace and the kitchen. Besides a garage in the basement, there is also a tape-recorder room for the owner, who is a radio commentator. This house has been planned for the future addition of three more bedrooms.

WEEK-END HOUSE IN LOUISIANA
NEW ORLEANS, LOUISIANA
DR. AND MRS. MORRIS SHUSHAN, OWNERS
CURTIS AND DAVIS, ARCHITECTS



Here's a week-end house you will really want to study. It has many interesting features, including an unusual bathroom and an interesting fireplace. The photograph shows the dining area and some interesting cabinets. The fireplace in the foreground has a tile and concrete base. The cone hood is made of copper 15 inches wide, lapped 2 inches, and riveted. It is about 3 feet wide at the base. Materials used in this cottage include polished pecky cypress walls, flagstone floors, and pine ceiling.

Joseph W. Molitor



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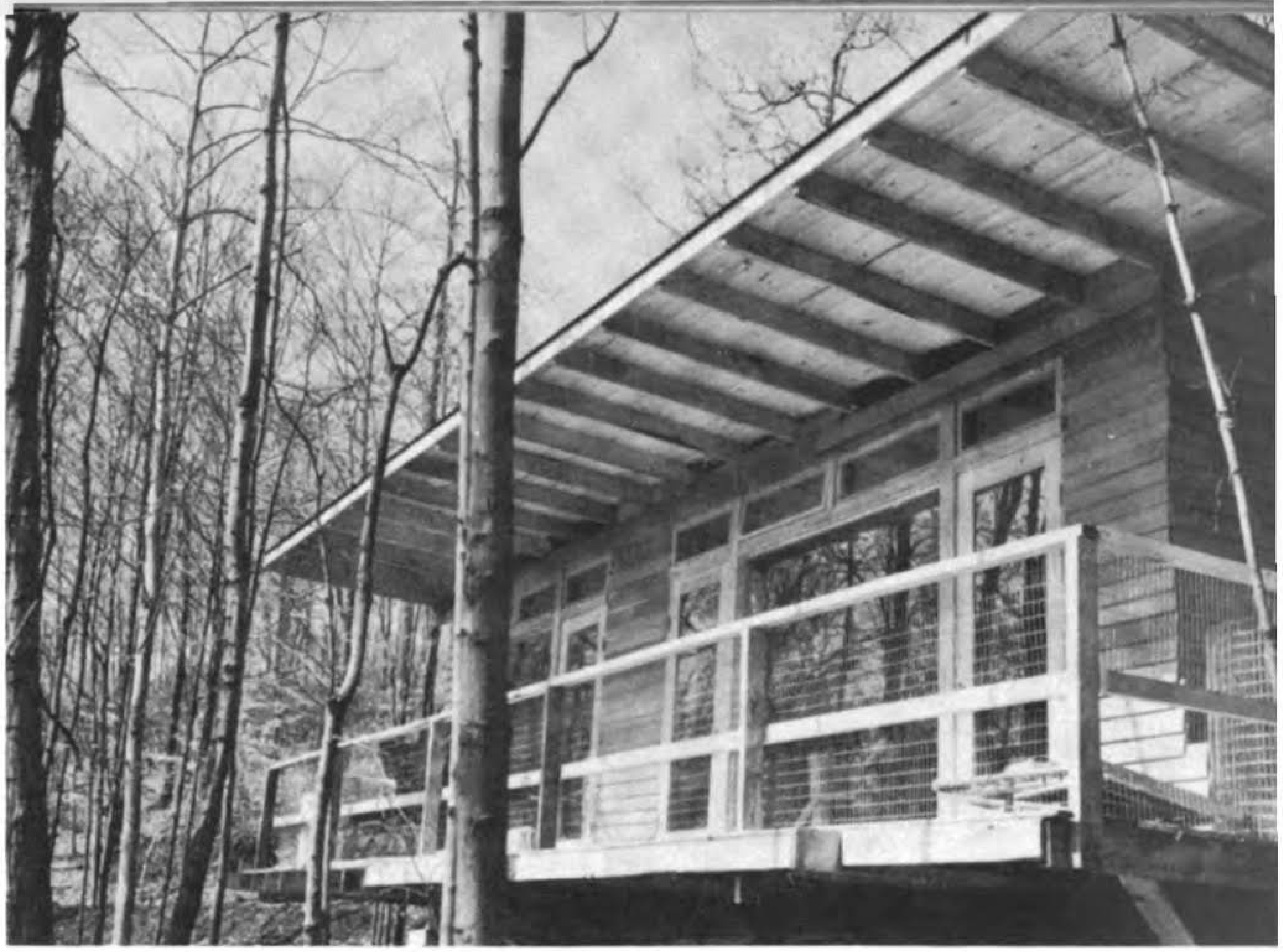
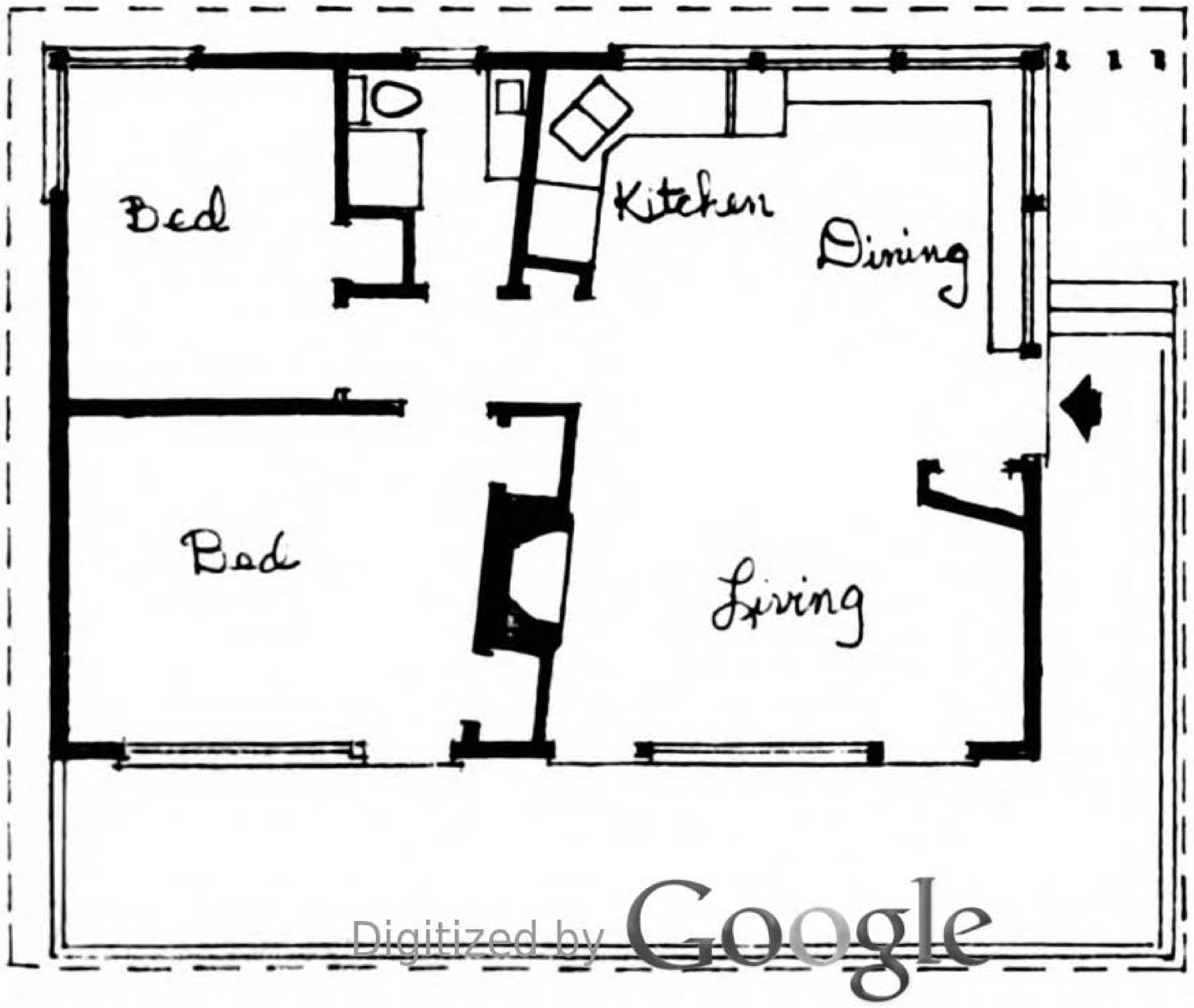
We built this cottage in upper Westchester County. It is a very livable unit. By orienting this house so that the large glass area faced south, it was made possible to cut off the heat at ten in the morning and not put it back on until three in the afternoon on a cold winter day. The skew fireplace wall makes the living room seem larger than it is. We have slept six people by using a studio couch in the living area.

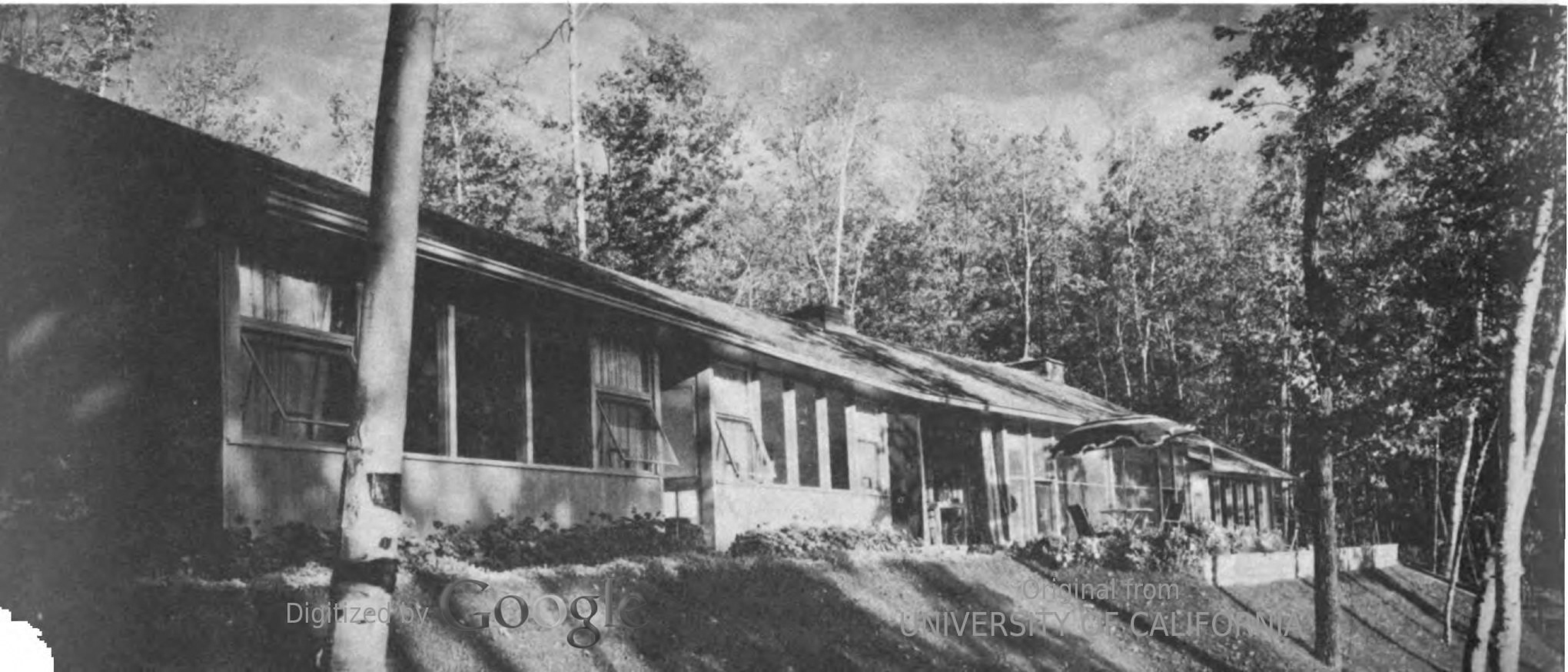




HILLSIDE WEEK-ENDER
YORKTOWN HEIGHTS, NEW YORK
MR. AND MRS. J. H. LIVINGSTONE, DESIGNERS AND OWNERS

This cottage is situated at the end of a parabola-shaped bay and on a ninety-acre tract. The small photograph right shows a view of the living room from the sun-bathing court. The barbecue is for outdoor snacks. The main fireplace wall is used to stiffen the whole structure. The large exterior photo shows the use of striated plywood as an exterior finish. Note the very pleasant master-bedroom arrangement. All the stone used in this cottage was quarried on the site.

Panda



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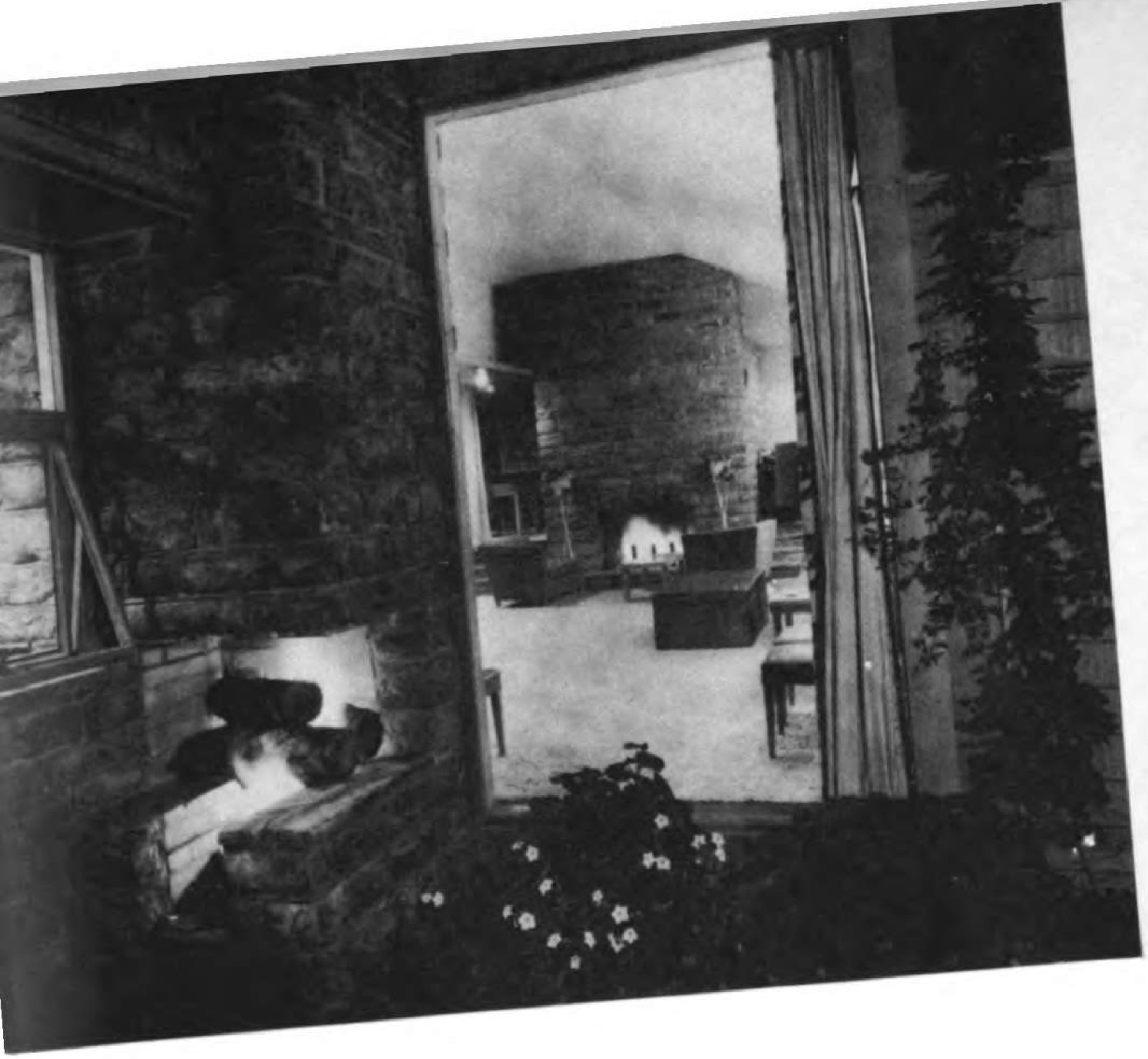
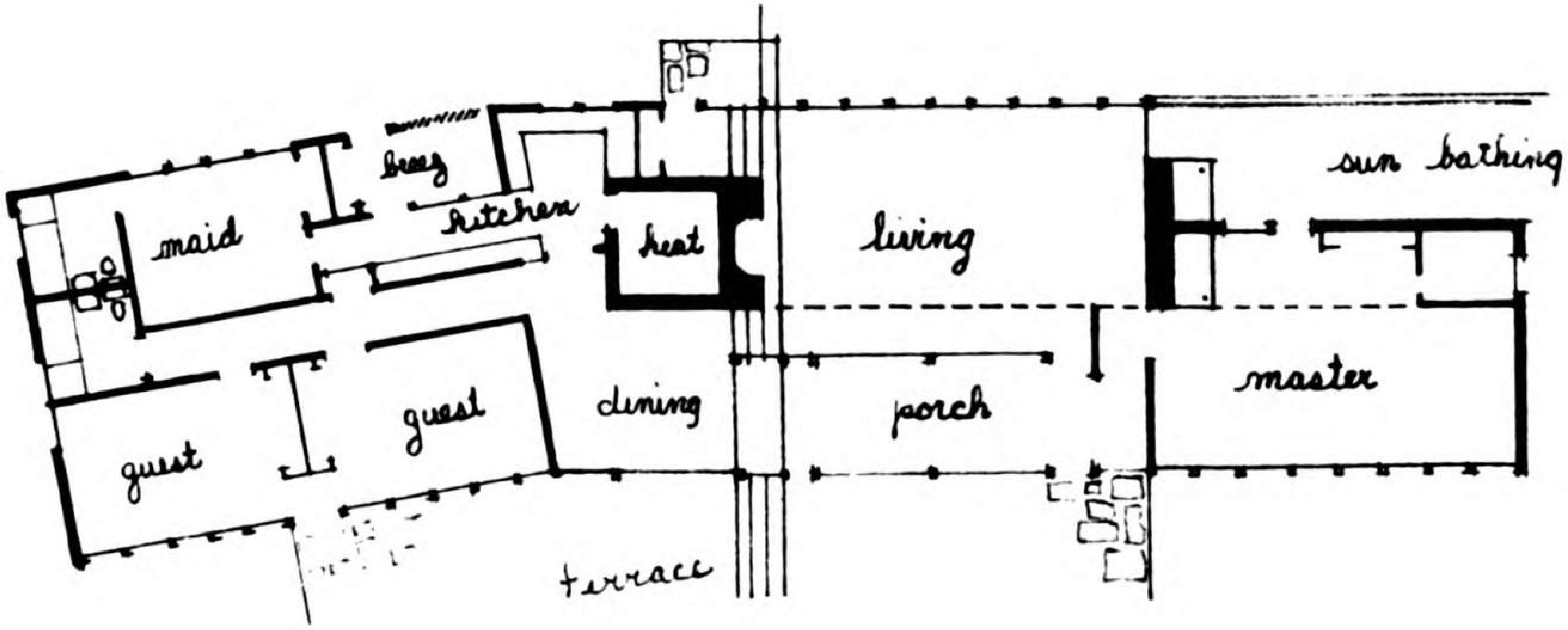
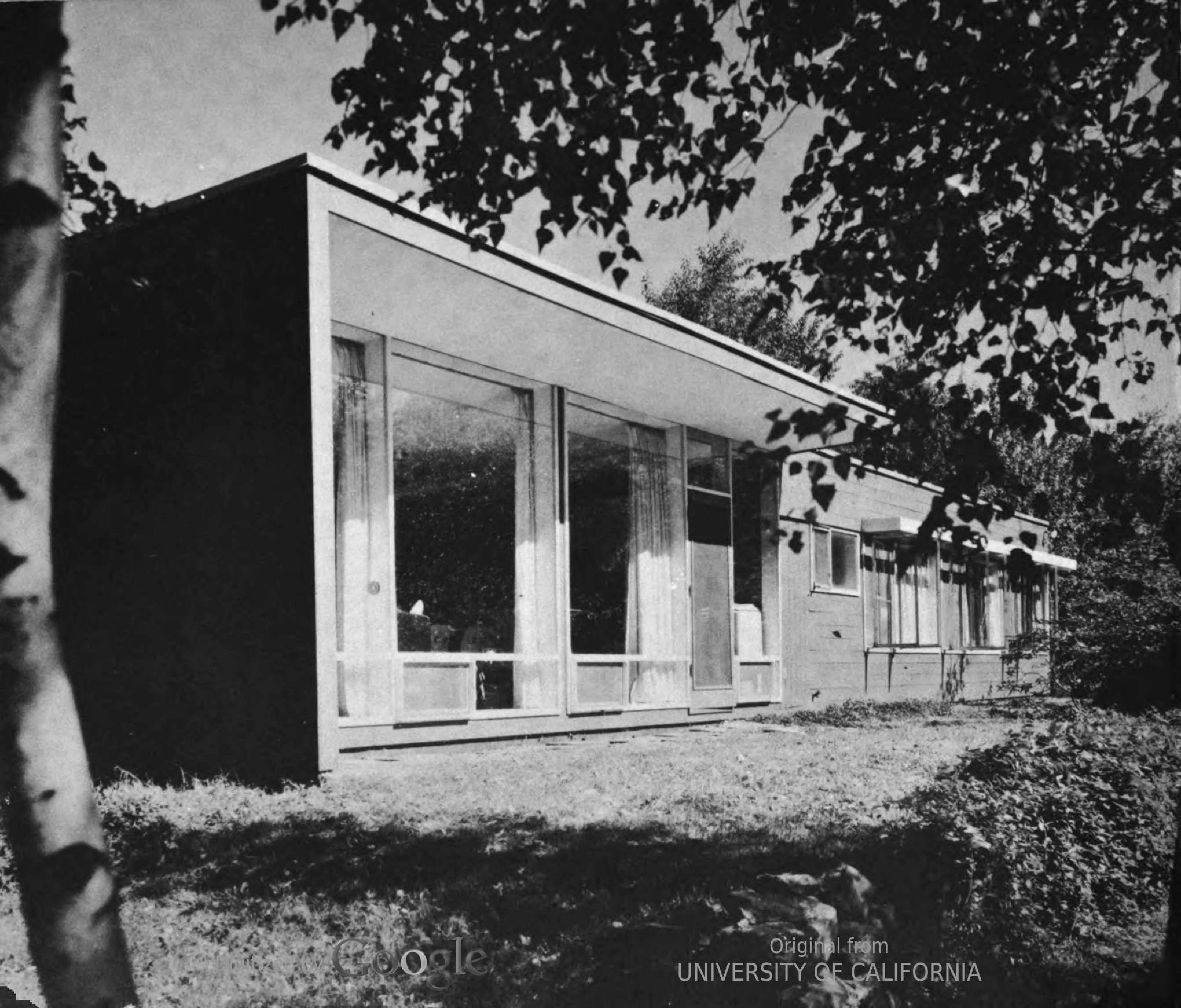


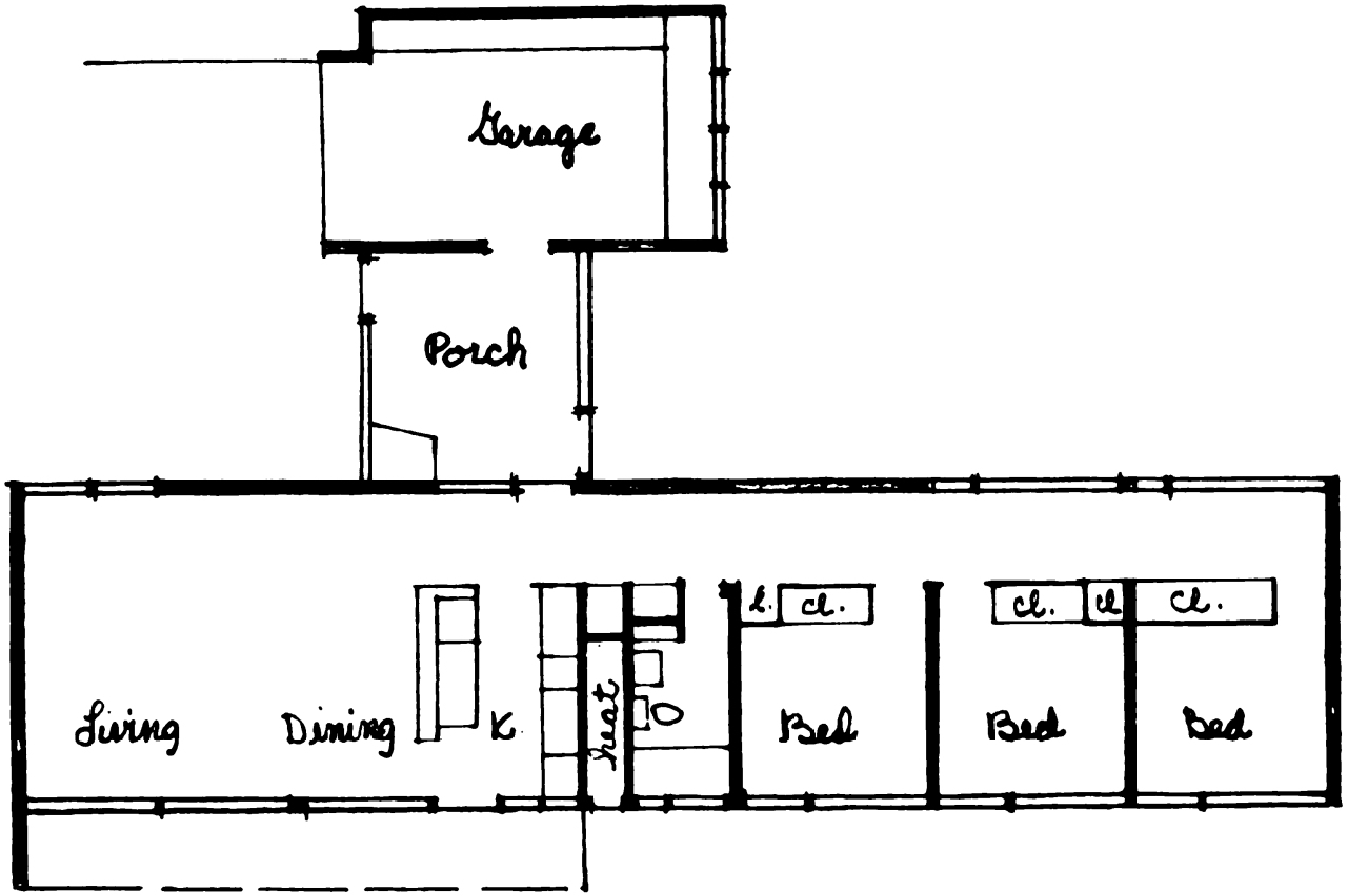
COTTAGE FOR W. R. WATKINS
LAKE ROSSEAU, ONTARIO, CANADA
JOHN B. PARKIN ASSOCIATES, ARCHITECTS





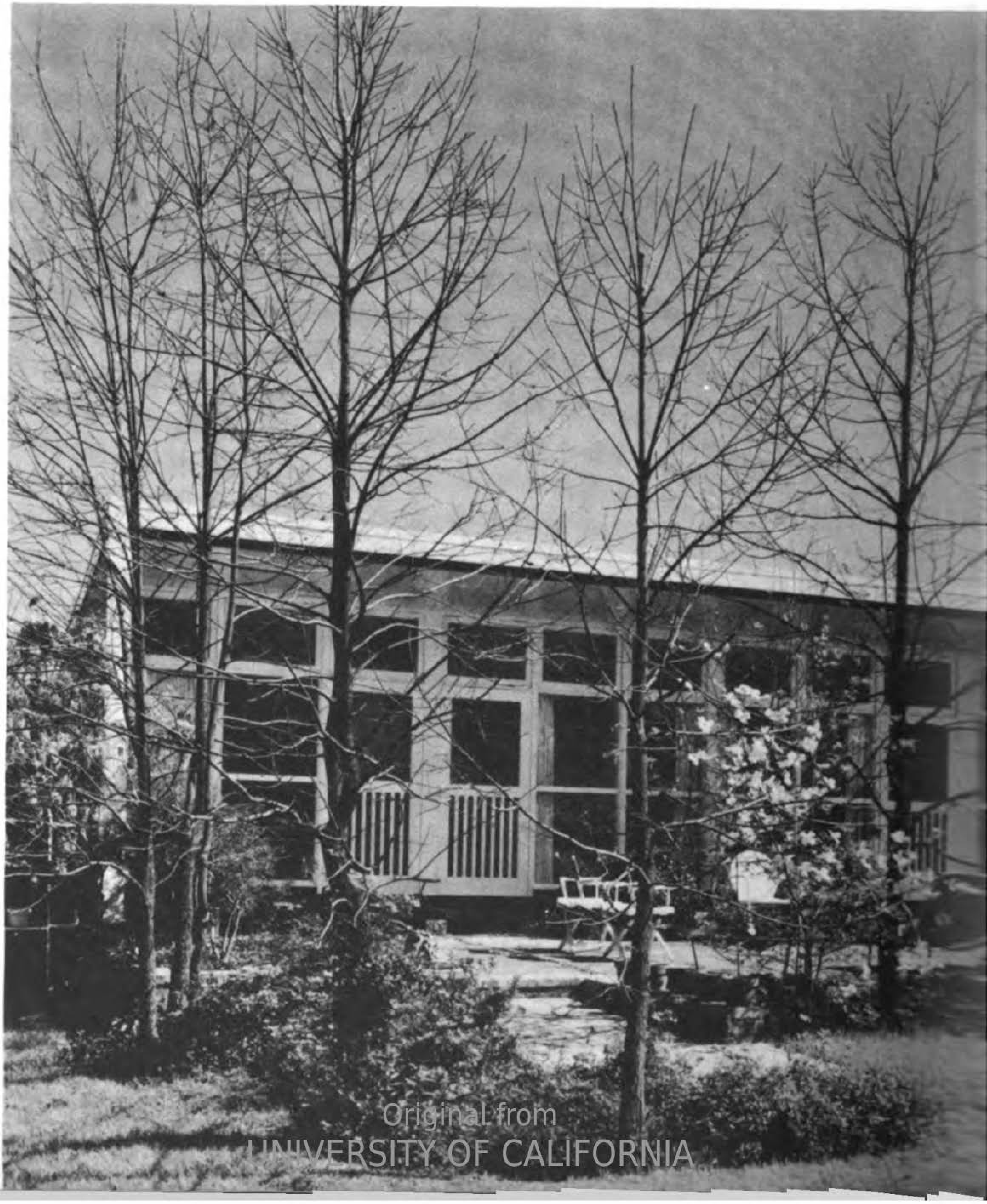
A NARROW PLAN
THORNWOOD, NEW YORK
WARREN WILSON WEAVER, ARCHITECT-OWNER

This unit and cottage number 4 shown in the previous section have much in common. Both have a long narrow plan; both have fixed-glass areas with ventilation under the windows; both have simple roof lines. The cedar siding of this residence has been painted brick red. Note the porch, which connects the garage with the house.

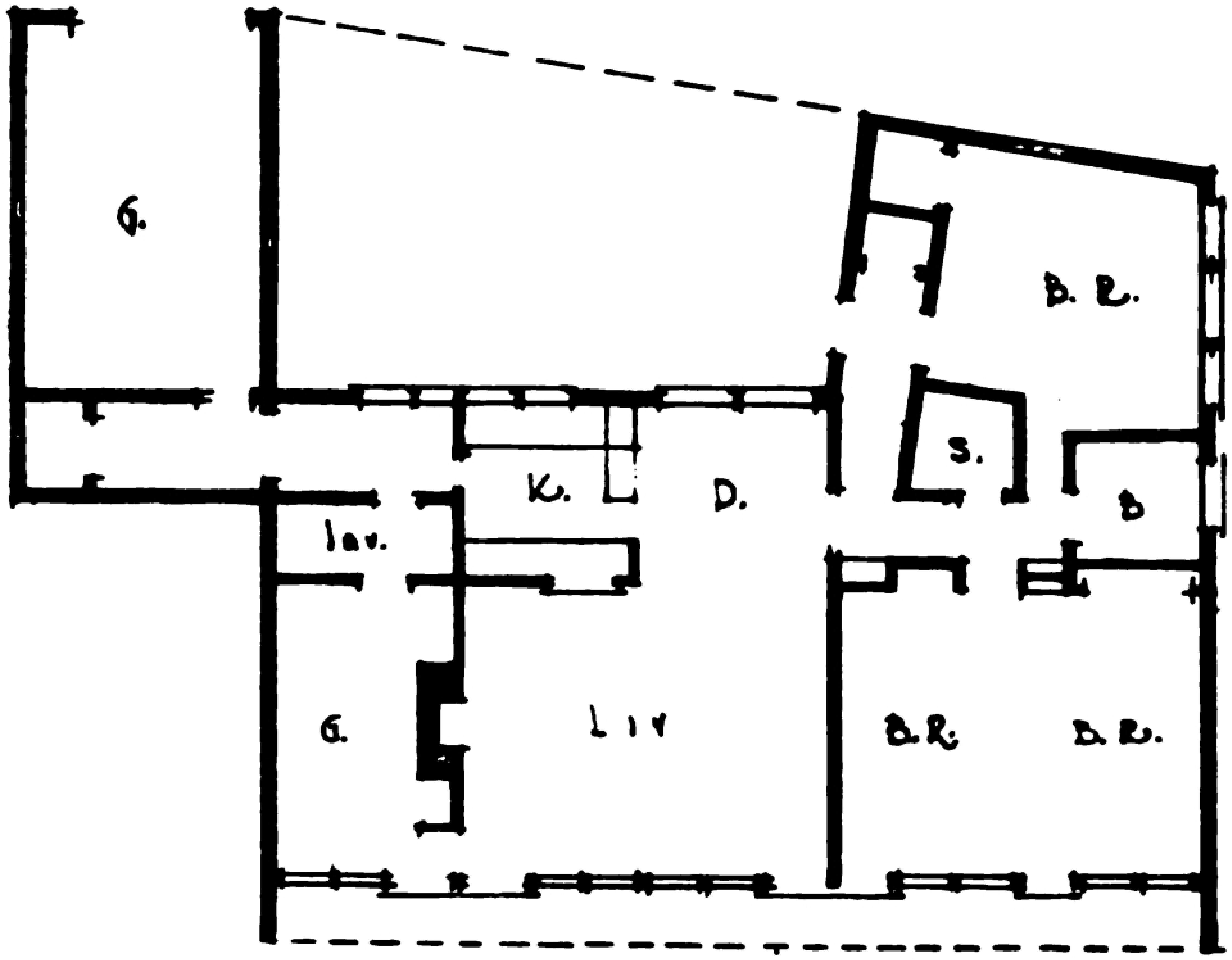


Joseph W. Molitor

FOR A NARROW LOT
D. McKINNEY, OWNER
MEMPHIS, TENNESSEE
EASON, ANTHONY, McKINNEY
AND COX, ARCHITECTS

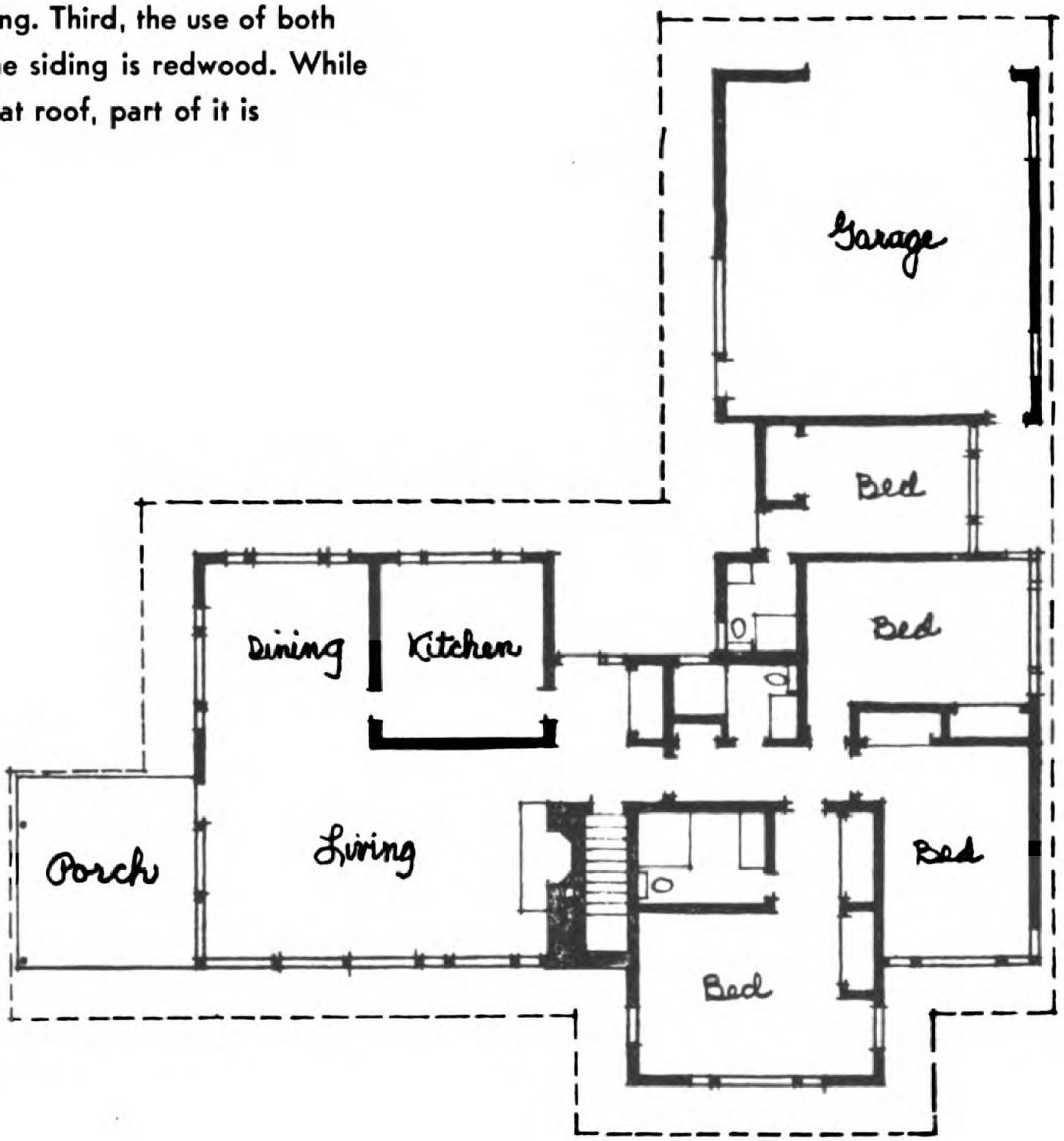


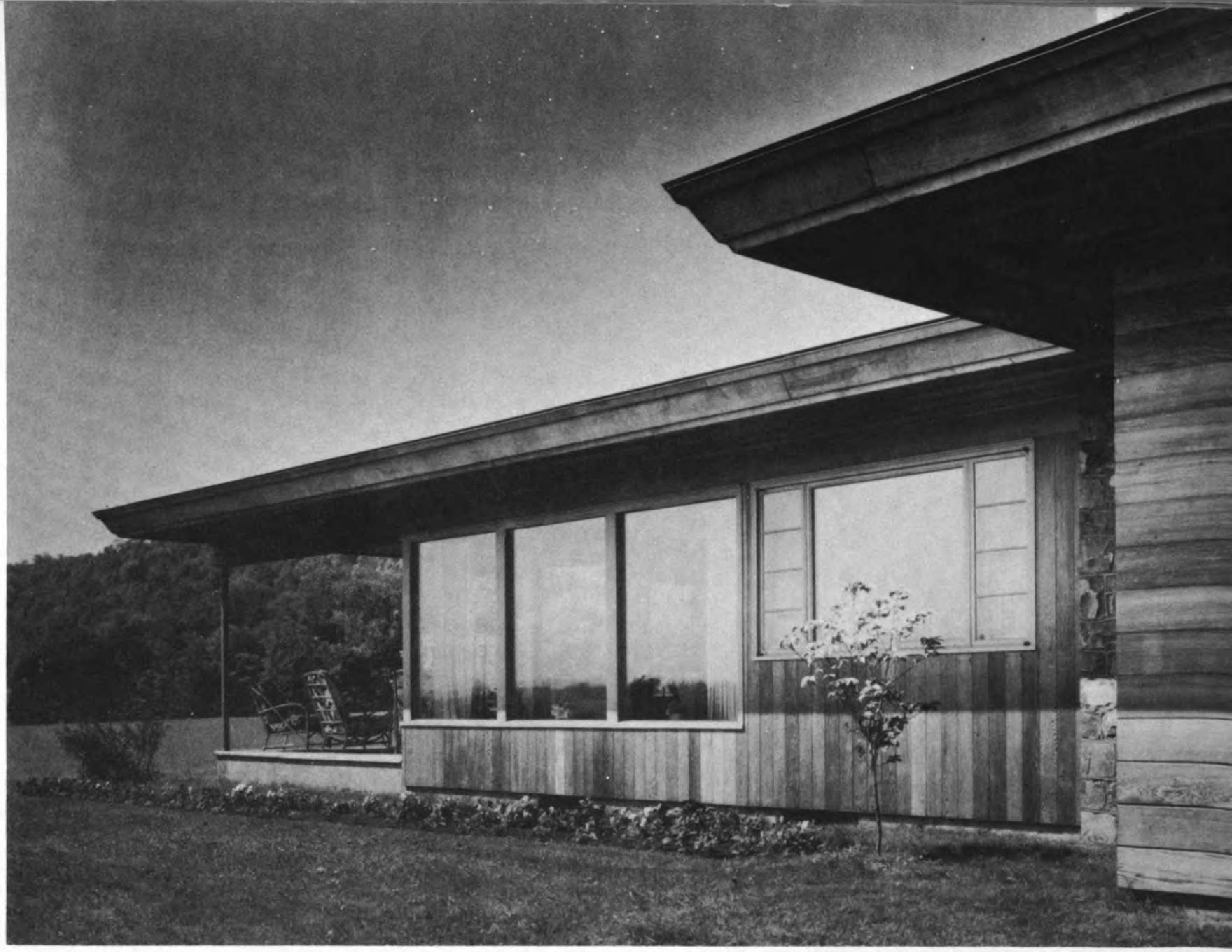
Joseph W. Molitor



If your lot is narrow and flat, you may want to use plantings and trees for shade and privacy, as has been done here. The double doors permit a generous circulation of air, but to make sure, the top series of windows are hinged outward. This is another way that you might ventilate your cottage.

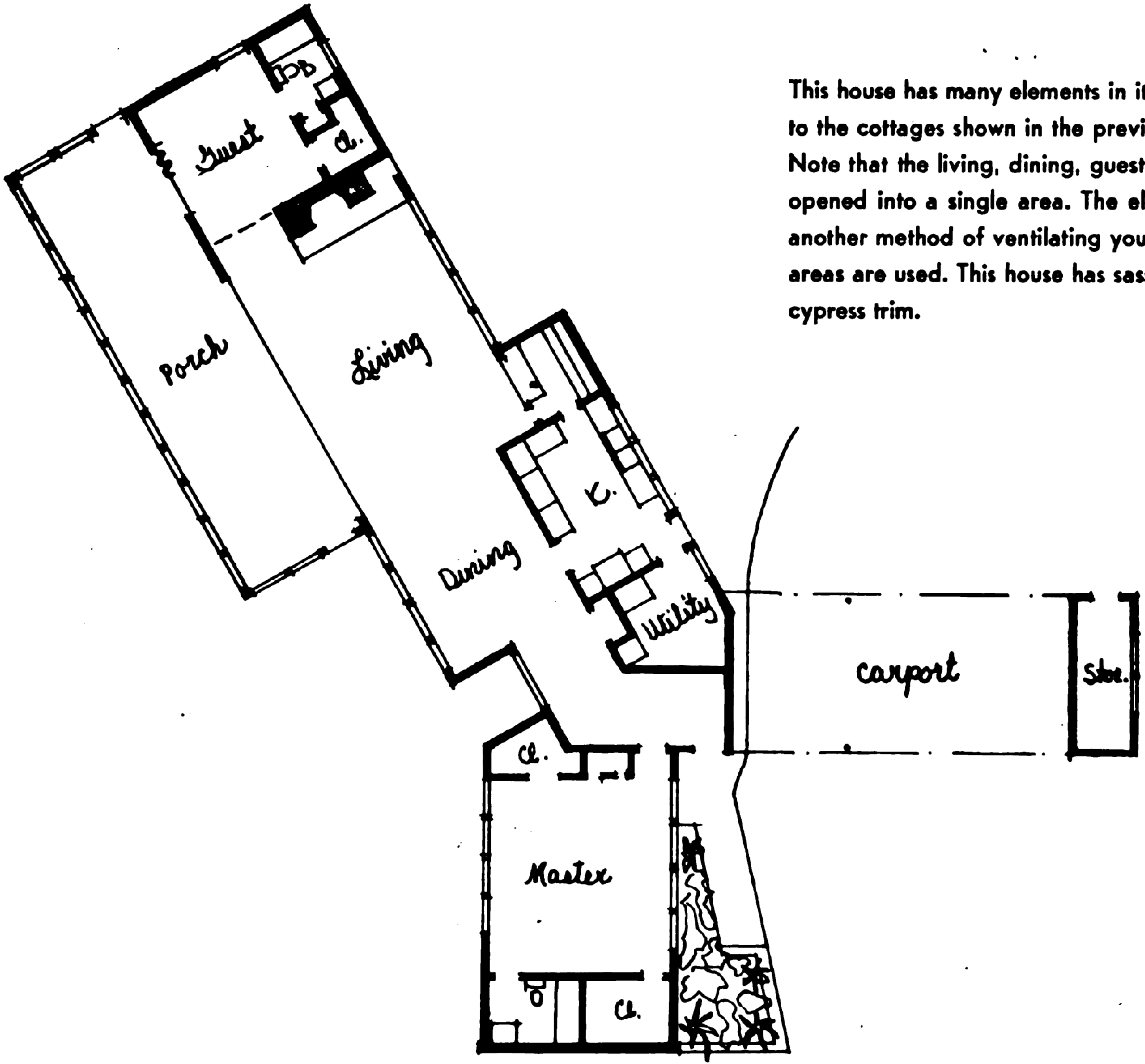
The photograph of the living-room wing of this residence illustrates three points that you might consider when you build your own cottage. First, the use of fixed glass. Second, the use of a stock window that seems to blend well with the custom fixed-glass opening. Third, the use of both vertical and horizontal siding. The siding is redwood. While the residence seems to have a flat roof, part of it is actually hipped.





Joseph W. Molitor

ON THE MOHAWK TRAIL
GREENFIELD, MASSACHUSETTS
MR. AND MRS. GEORGE W. WILCOX, OWNERS
JAMES A. BRITTON, ARCHITECT

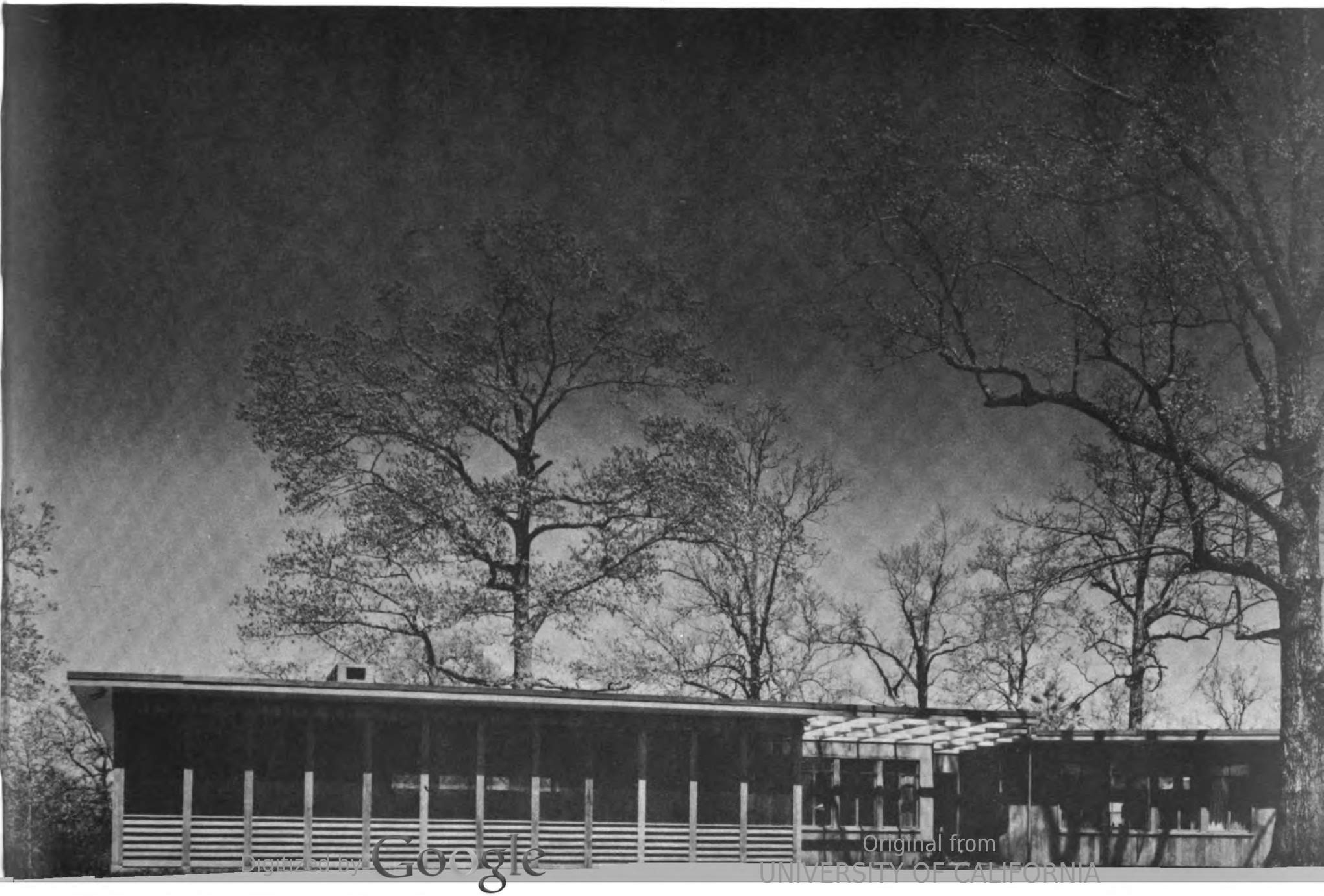


This house has many elements in its design which are similar to the cottages shown in the previous section of this book. Note that the living, dining, guest, and porch areas can be opened into a single area. The elevation above shows another method of ventilating your cottage when fixed-glass areas are used. This house has sassafras siding, tidewater cypress trim.

Original from UNIVERSITY OF CALIFORNIA

HOSPITABLE HOME
JACKSON, MISSISSIPPI
MR. AND MRS. GEORGE HARRISON, OWNERS
JAMES T. CANIZARO, ARCHITECT

Joseph W. Molitor



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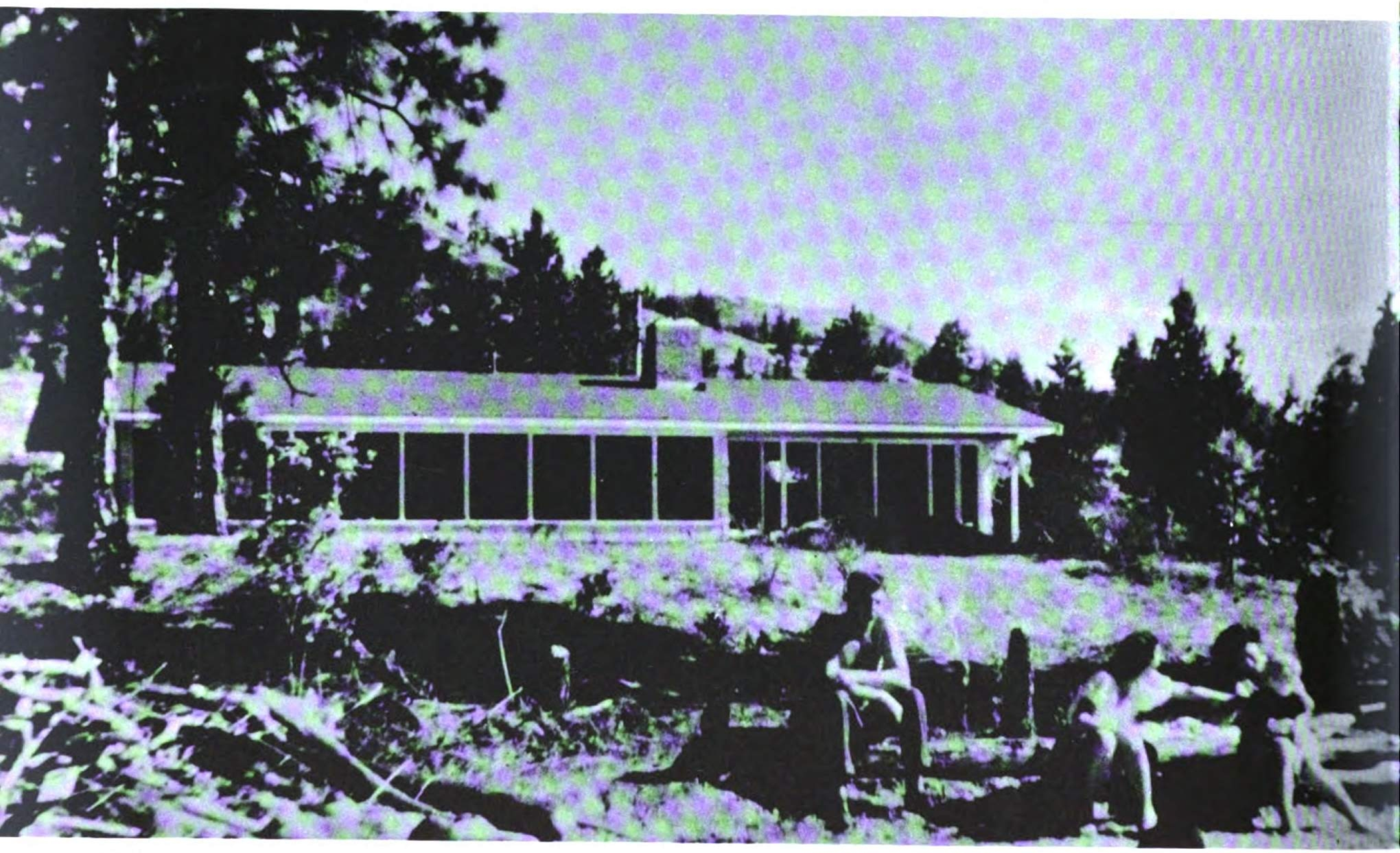
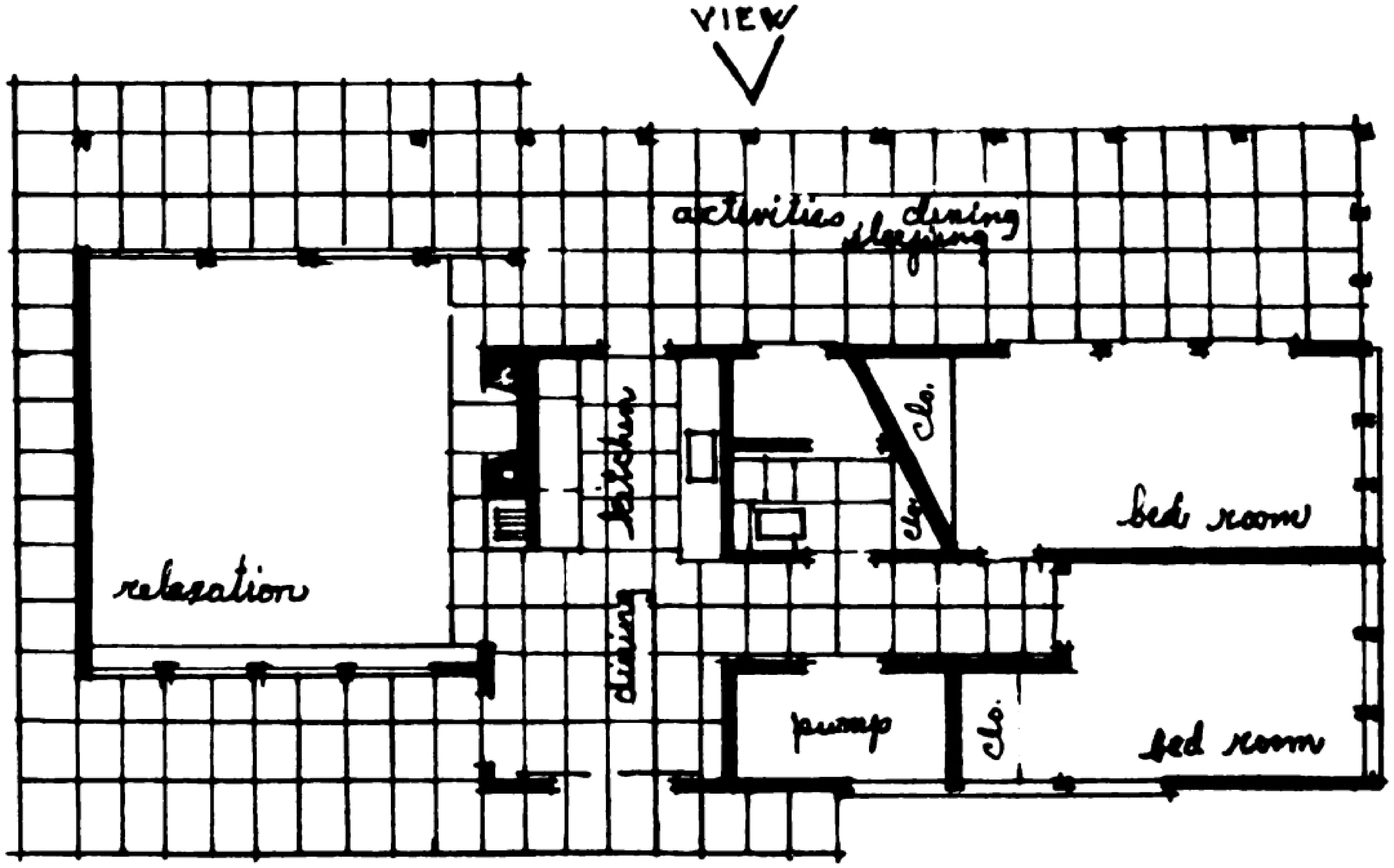
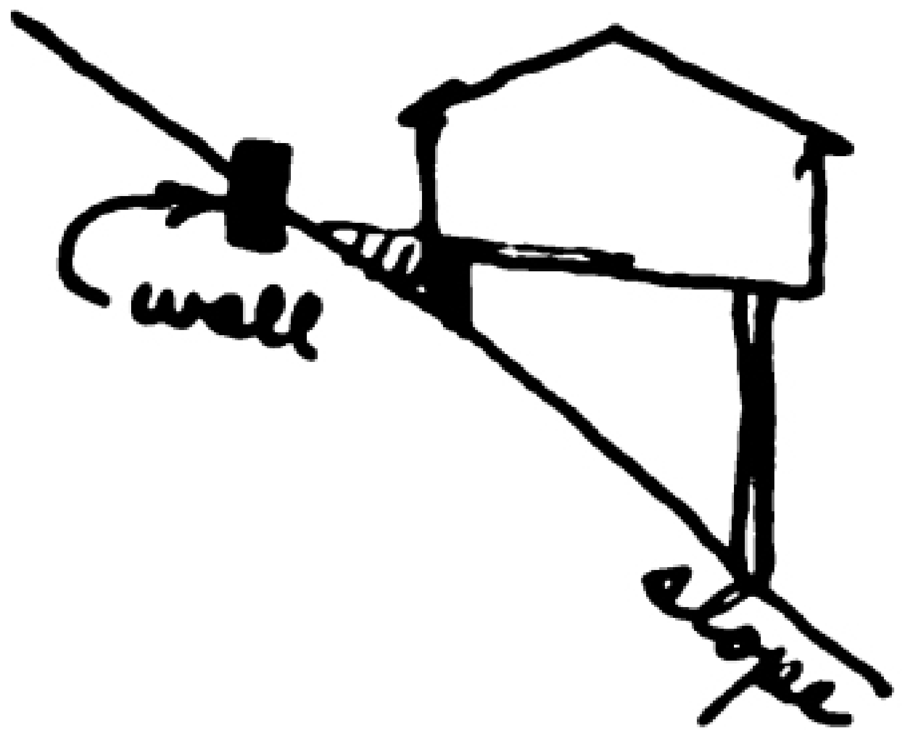
OKANAGAN RETREAT
LAKE SKAHA, BRITISH COLUMBIA
R. A. BERWICK, ARCHITECT





This cottage, built by an architect for his own family, has well-segregated living and sleeping quarters. The kitchen is strategically located so that it can serve the dining area or the screened porch. Perhaps the most interesting feature of this cottage is the large screened porch that can be used for relaxation, dining, or sleeping. There are many built-in units in the living area.

SITE SELECTION AND ORIENTATION



Some of you will find it difficult to locate a good spot for your camp or cabin. A possible solution may be found in our national forests. If you write to the officer in charge of a particular forest, he will give you information regarding available sites. If you don't know who your nearest forest officer is, write to the National Park Service, Department of the Interior, Washington 25, D.C.

A permit to build in one of our national forests usually stipulates that you will make improvements costing at least five hundred dollars including labor. In order to avoid the erection of unsightly shacks, it is specified that only one cabin can be constructed on a lot. Each applicant must submit his plans for approval before a permit will be issued. Permanent construction must be completed by the second season after the permit is issued.

The Forest Service requires that the construction be done in a workmanlike manner; substantial floors, roofs, doors, and windows must be installed. The buildings must be in harmony with the surrounding landscape. In a large colony you may be required to install a chemical toilet or septic tank and have a piped water system or other improvements. Be sure to ask about these things before you go too far.

If you decide to build in one of the national forests, you will find that a good deal of the site selection has been done for you by the Forest Service.

If you build on a hillside or slope and if the rainfall is heavy you may have to install a watershed. A shallow ditch or low wall is all you will need to keep the water from running into your cabin.

In picking your site you will want to consider the matter of good roads. Your cottage doesn't have to be on a main highway, but you will want to be able to reach your property conveniently. You will have to get supplies—and there is always that emergency.

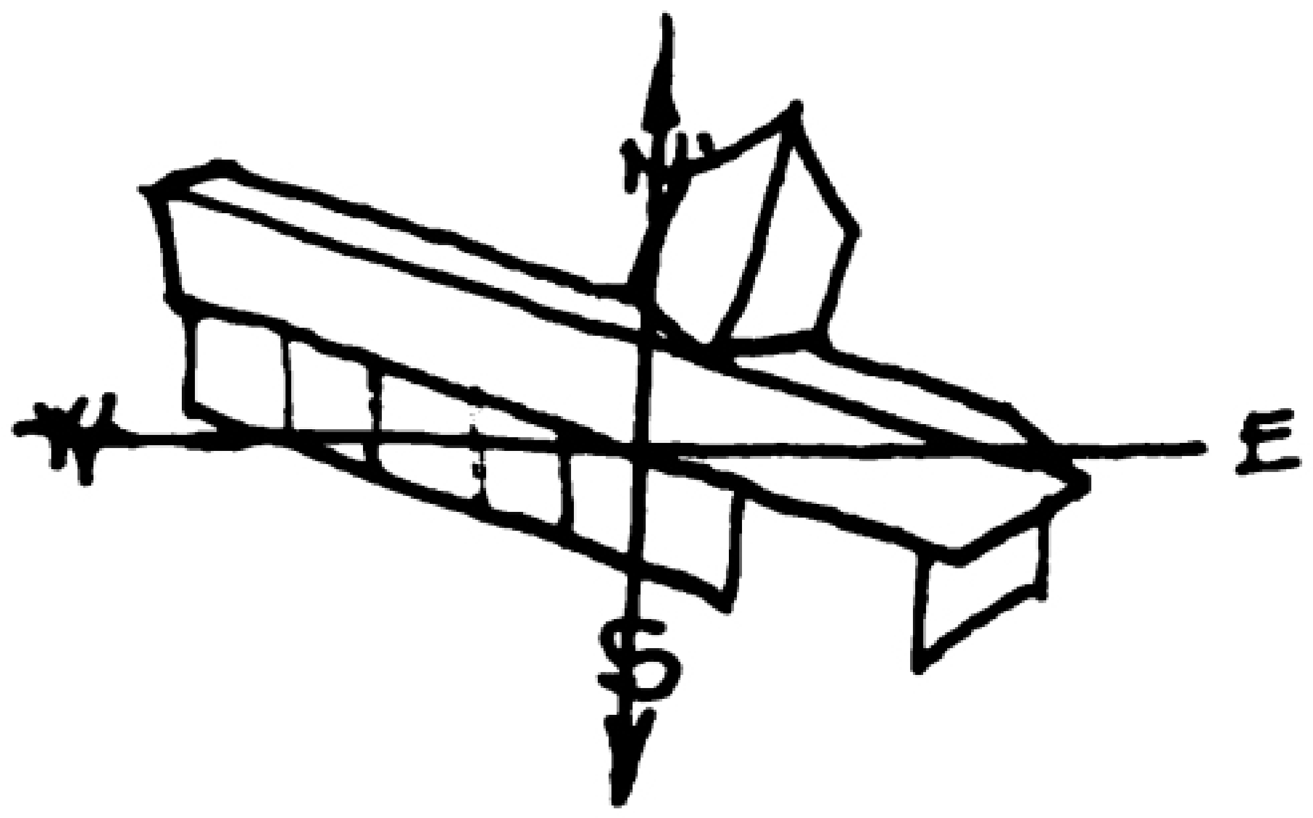
that third wave will remove your cottage if you build too close to the shore.

If you decide to build a beach house, don't build too close to the water. Ocean storms often drive the water a considerable distance inland. Be sure to get expert advice regarding the safety of your location. If the coastline is rocky, it is usually a good idea to keep your cottage back from the water as far as the shrub growth. Usually this line is a safe distance from waves.

ORIENTATION

Regardless of where you decide to build your camp or cabin, there are some things you can do to improve the climate around your cottage.

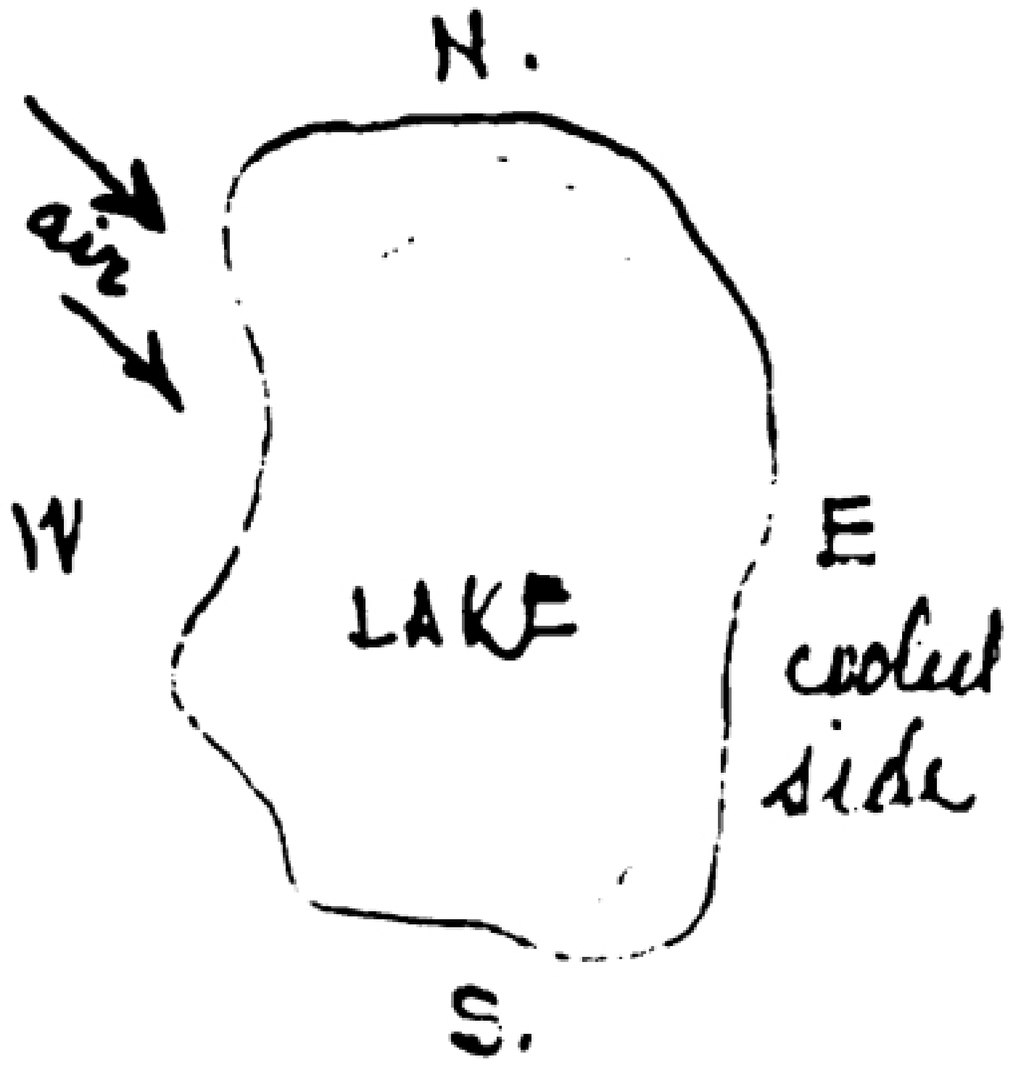
In summer, the best orientation for the large glass areas of your camp or cabin would be about 20 degrees west of south. If your view is due west or north, the best thing you can do is to improve the surroundings so that the climate around your camp will be as comfortable as possible. This may call for building walls or screens or planting natural hedges.



Lakes, rivers, and ponds can have a cooling effect on your camp. Water is an evaporator cooler. Wind or air moving over its surface (during the summer) is cooled and moves out over the surface of the land. The air on land is heated and rises. The vacuum left by the air that was over the water pulls the hot air above it down onto the water. This cycle is an almost continuous operation.

The cool air path that moves outward from a body of water is only about 50 to 100 feet deep. Therefore, if you have a choice, it would be wise to locate your camp not too far back from the water and not over 50 feet above the surface of the lake.

cooled air is a narrow strip



Preivailing western wind will make east shore cooler

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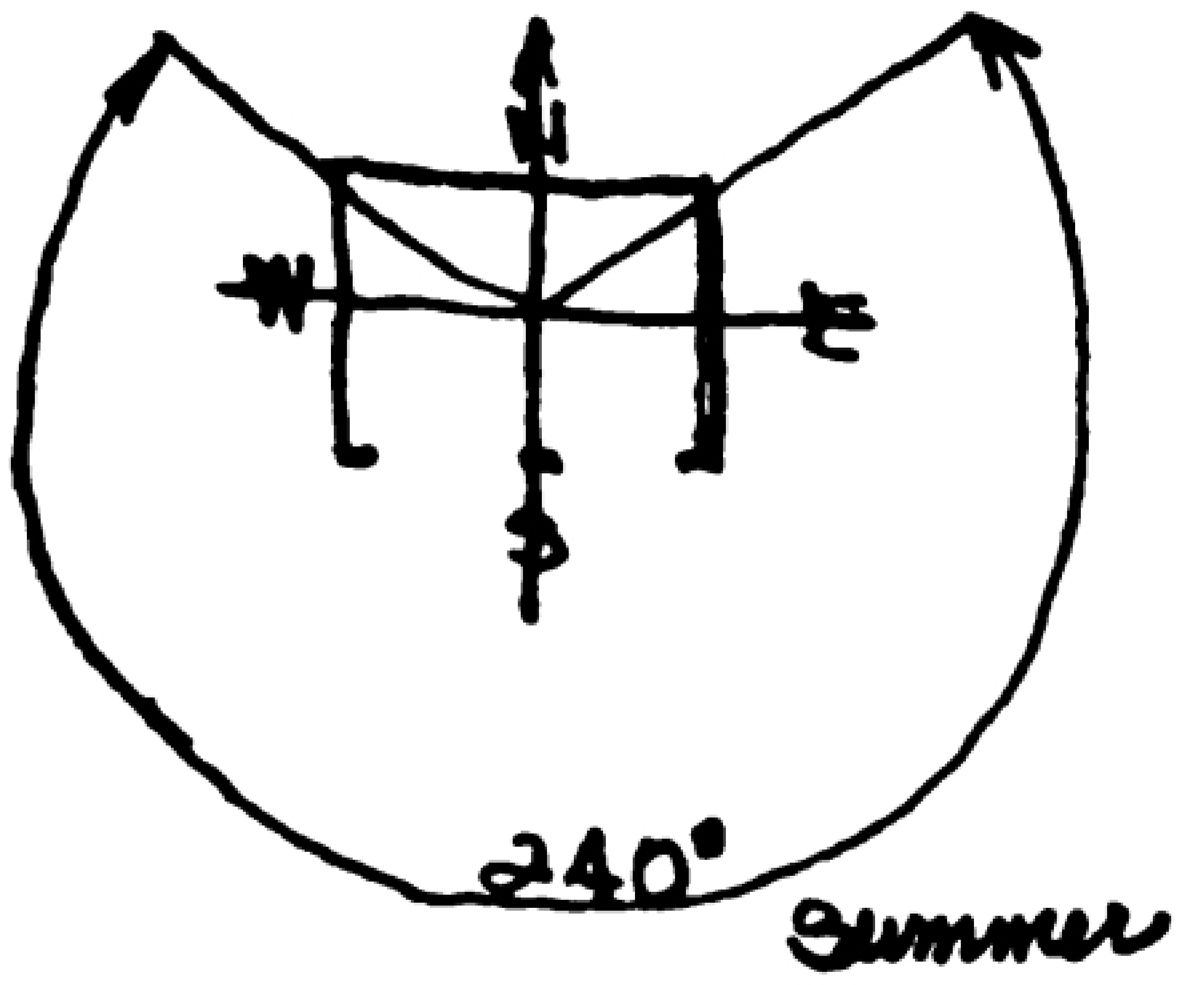
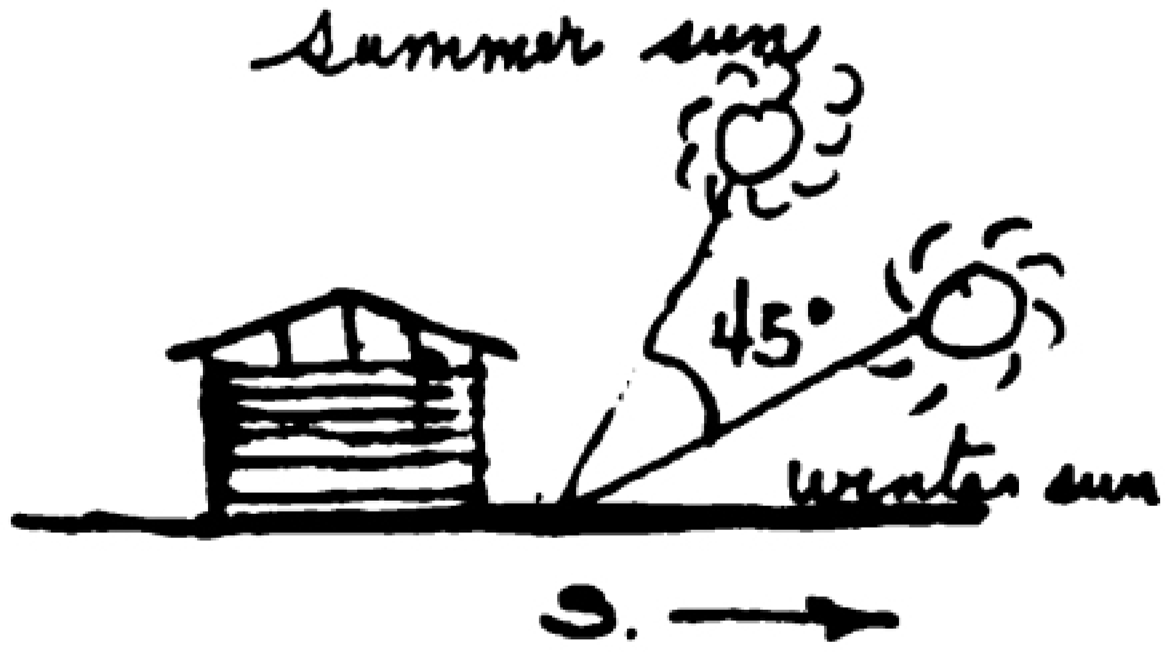
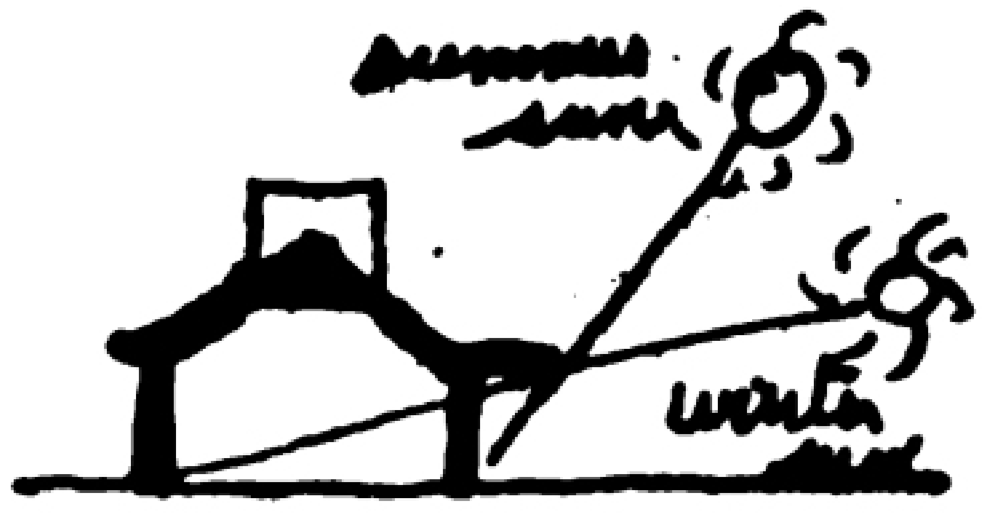
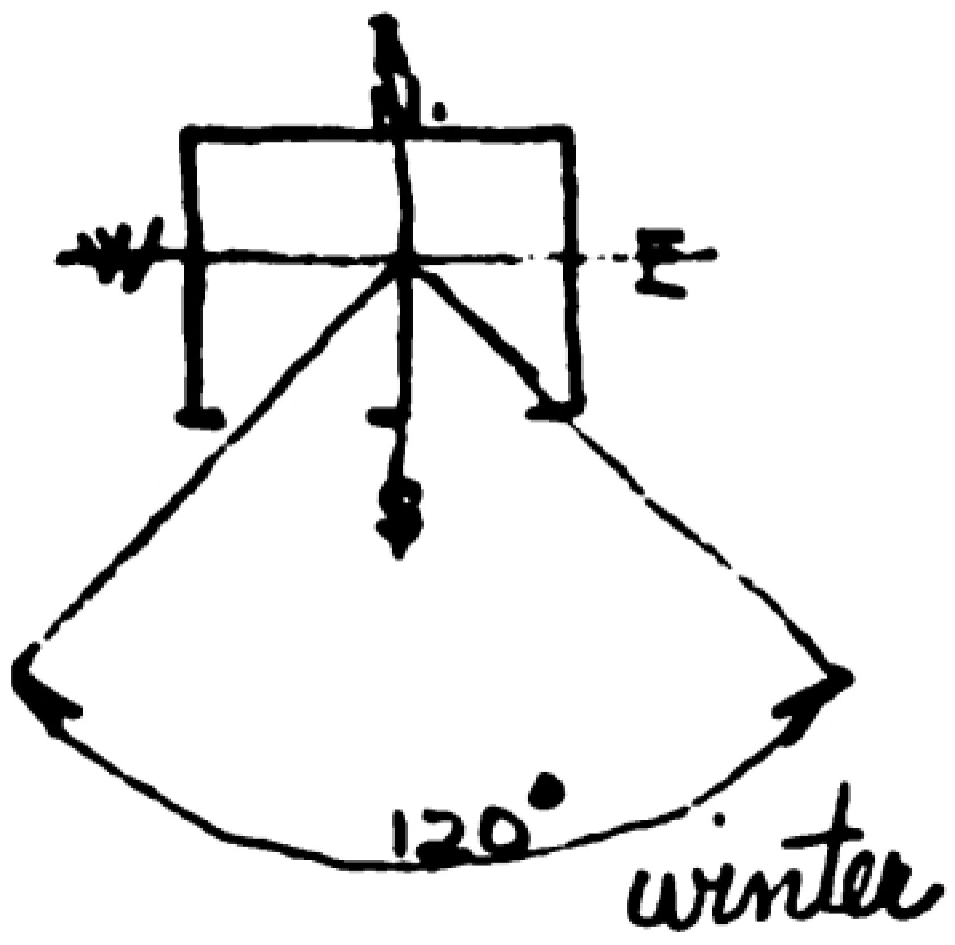
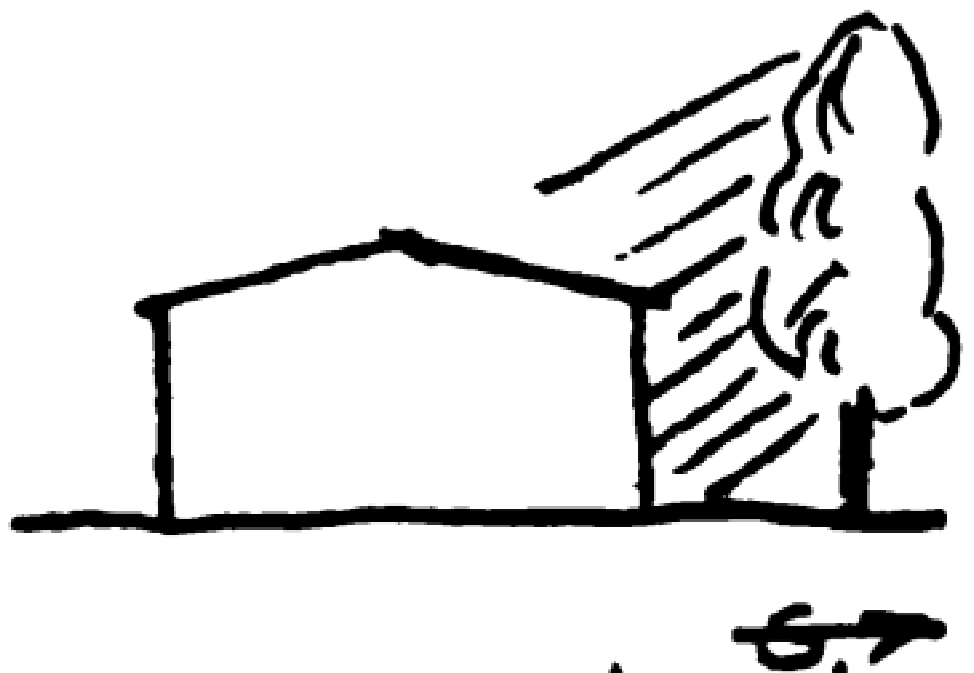










Trees cut down glare and give shade

There are other factors to consider in orienting your house. In summer the sun rises in the northeast and sets in the northwest. The hottest sun is beween 3 and 5 P.M.—the time of day when you really begin to feel the heat. If the glass areas and porches or terraces are located so that they are not washed by the sun, you will have a cooler and more comfortable cottage.

One of the most obvious approaches to climate control is the screening of sunlight. Trees, of course, are very helpful. They are usually above the roof of your camp and serve as an umbrella to keep the sunlight off the roof and terraces. Bushes and shrubs can also be helpful.

CONSTRUCTION

As you have been going through this book, you have probably found one or more cottages that appeal to you. Perhaps you have already made up your mind. The balance of this book is designed to help you actually construct that cabin.

You'll note that after some of the following sections I have included a description of the various tools you will need. You are familiar with and own most of these, I'm sure. Those tools you don't have can usually be borrowed or rented.

Whether you intend to build immediately or are waiting until some future period, I'd suggest that you read the following sections, because they will show you what is involved. Follow the side sketches while you're reading; the work will seem simpler.

One of the things that I find helpful is to plan one day's work at a time. At first you will think that you can accomplish a great deal every day—you'll probably plan to do too much. Take it easy! Before you go to sleep at night, think out exactly how you are going to get those roof rafters in place. When you wake in the morning you'll find that your mind has added ideas to the ones you thought of before you dropped off to sleep.

A second suggestion I would like to make concerns ordering materials. Most lumber yards will take back unused materials. It is a good idea to order a little more than you need. Nothing is more exasperating than finding out at four o'clock that you can't finish the roof because you lack one framing member.

Here are two other suggestions that may be helpful. Order some extra roofing felt to protect the materials you have ordered. And, keep your tools sharp. The best power saw will burn your wood and cut poorly if the saw blade isn't sharp.

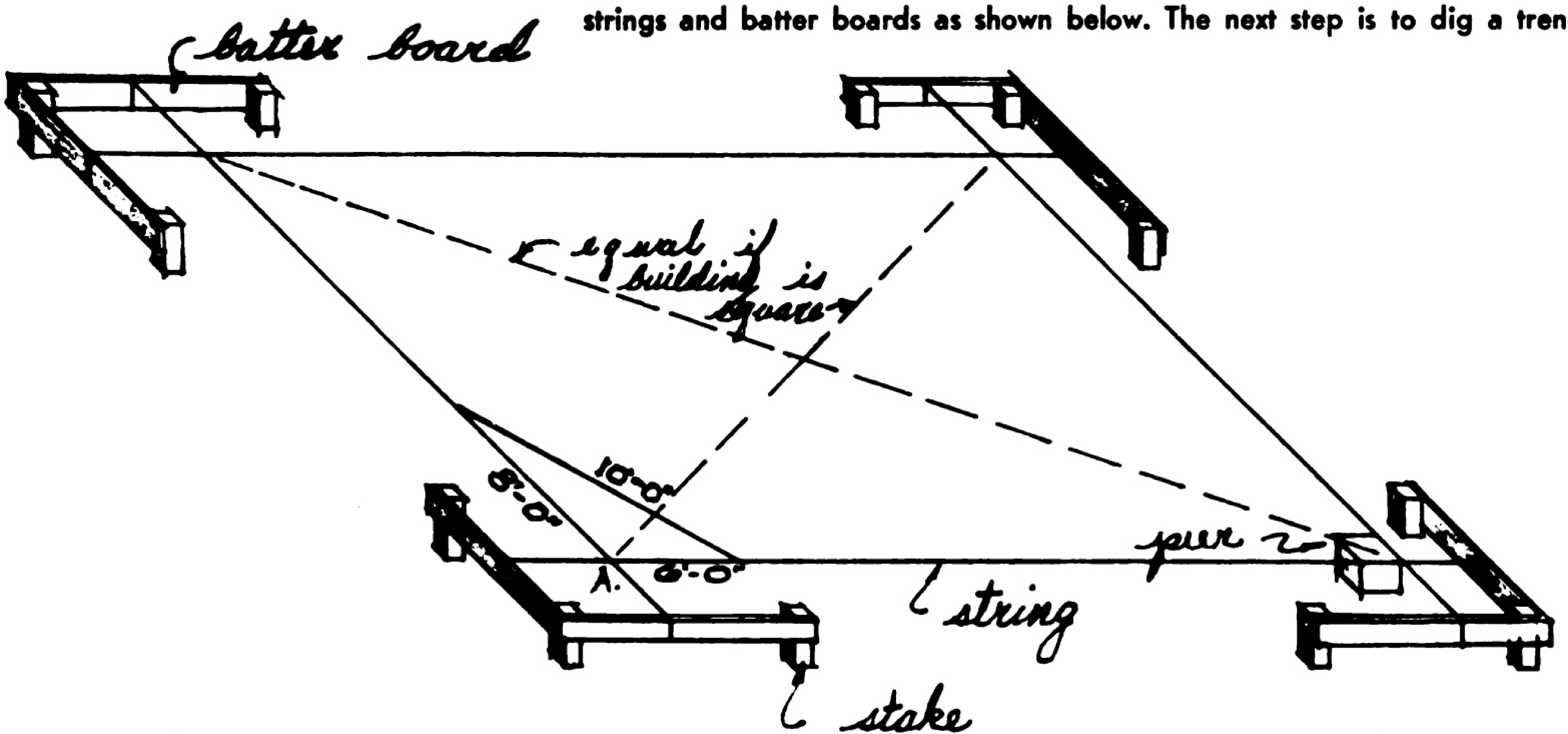
FOUNDATIONS

There are at least three types of foundation that may be used with any of the cottages shown in this book. These are: a concrete slab on grade; a full foundation wall (or basement) around the outside perimeter of the building; and a pier type of foundation. All the drawings in the book show pier foundations, because they are usually the cheapest to build and the easiest for the amateur craftsman to construct.

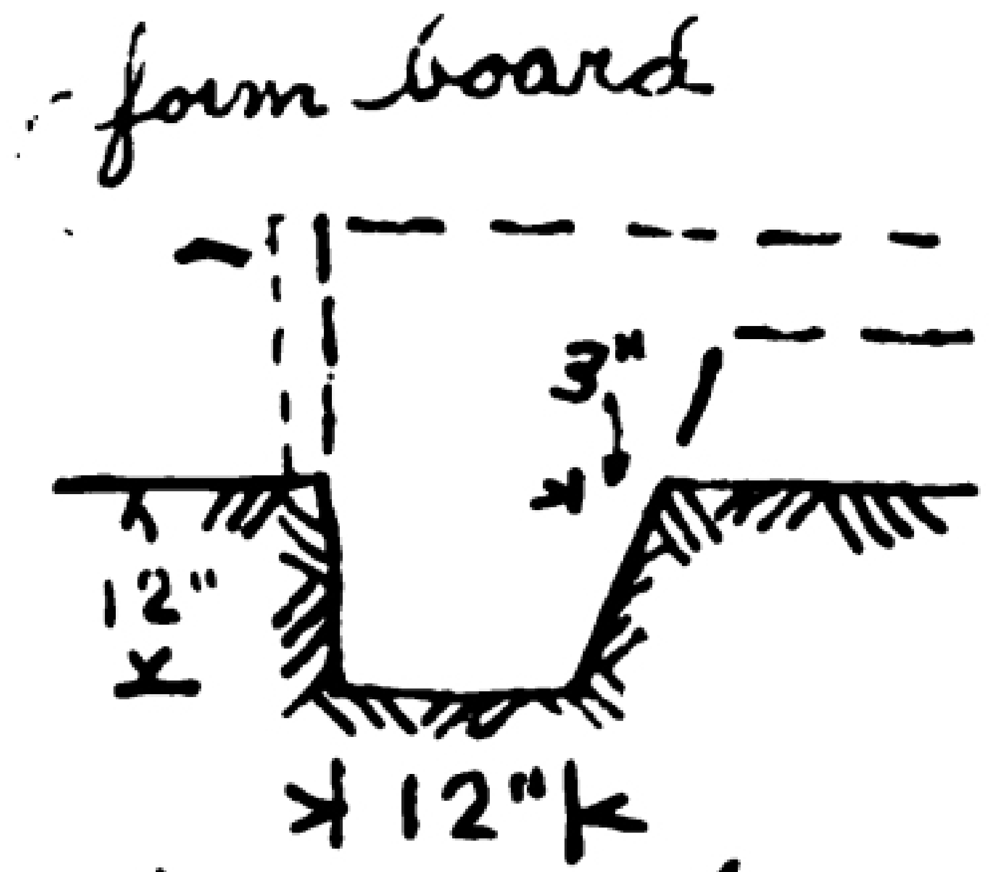
CONCRETE SLABS ON GROUND

If you have a level piece of property on which to build, you may want to use a concrete slab. It is fairly simple to make. After you have selected the cottage or camp you wish to build, refer to the foundation plan that is shown with it. Get the over-all dimensions firmly in mind.

On your site clear away the brush and lay out the lines of the building with strings and batter boards as shown below. The next step is to dig a trench about 12



adjust batter boards so that top edge is the same height as top of piers -- check with spirit level. Be sure corners are square -- use 6, 8, 10 ft measurement to check.



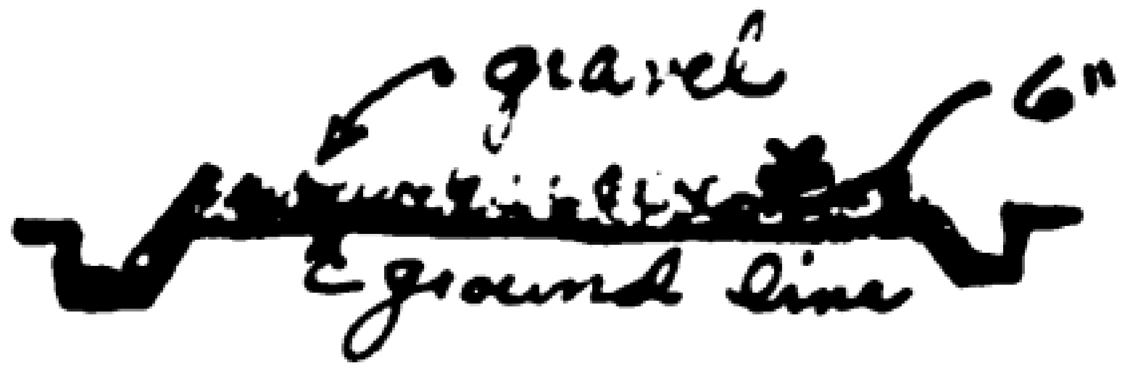
trench for slab

inches deep and 12 inches wide around the perimeter of the building. If you hit some large rock, leave it. Taper the inside edge of the trench as shown. By cutting the outside edge of the trench square, you can use it as part of the form for the beam edge of your slab.

While you're trying to get the crimp out of your back, have your wife call the local supply yard and have them send you enough gravel or crushed rock to lay a 6-inch bed under the slab. The following table tells you how to figure how much gravel or crushed rock you will need.

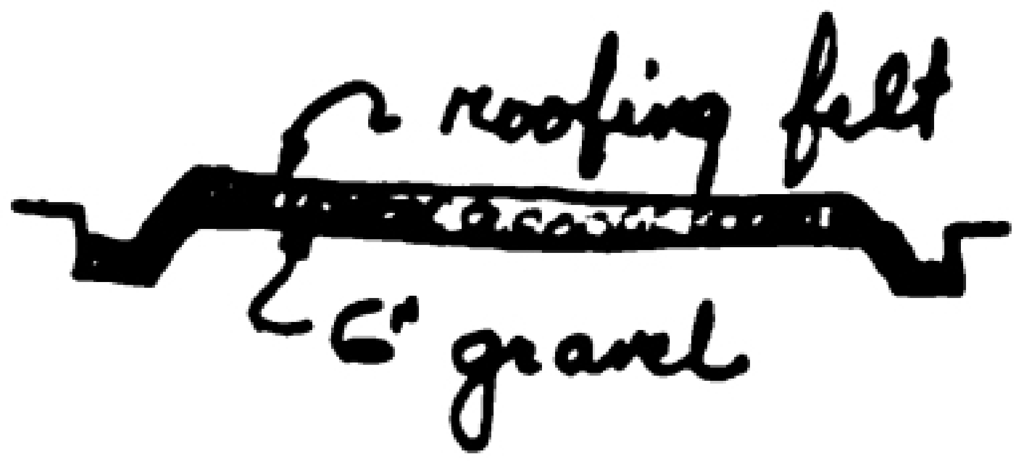
SQUARE FOOT OF AREA COVERED TO A GIVEN DEPTH BY A CUBIC YARD OF CONCRETE OR GRAVEL

M'T'L.	Sq. Ft. of Area			
	3" thick	4" thick	5" thick	6" thick
1 cu. yd.	108	81	65	54
1½	162	121	96	81
2	216	162	130	108
2½	270	202	162	135
3	324	243	194	162



taper gravel bed same as trench

At this point, while you are waiting for the delivery of the material, you will want to get all the rough plumbing in place. This means that all the pipes which will be permanently buried in the slab should be put in place, connected, and tested. See page 136 for illustration of pipes which have to go into the slab.

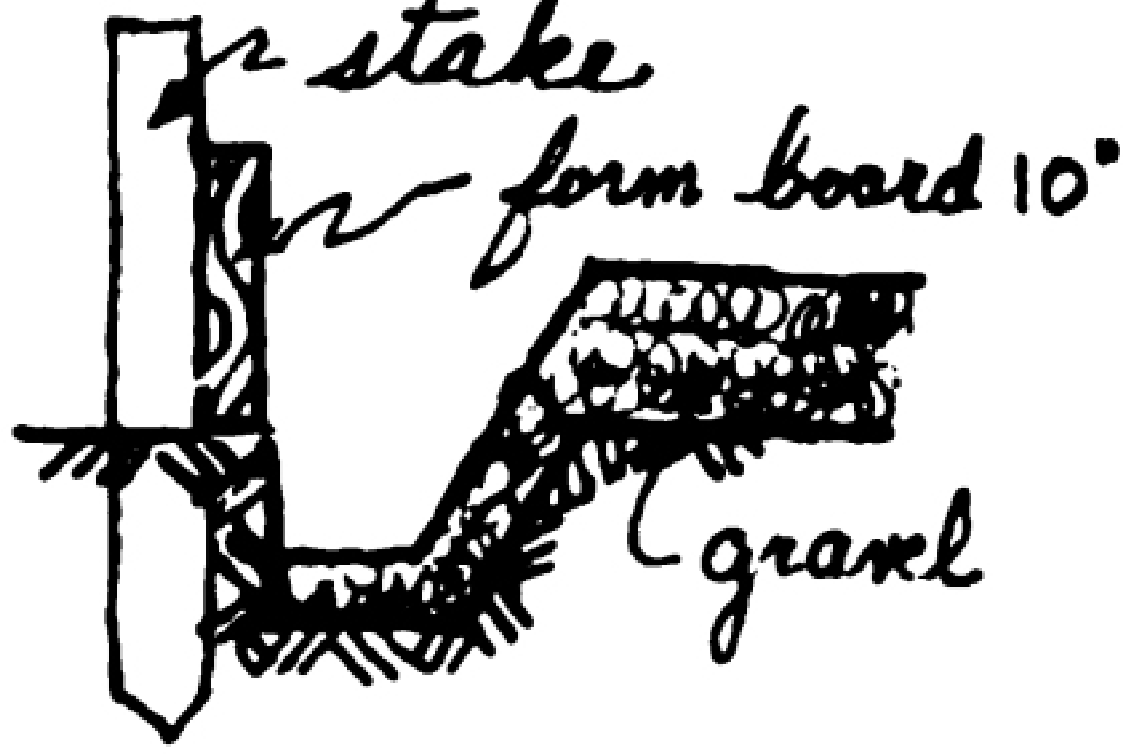


Lap roofing felt three inches

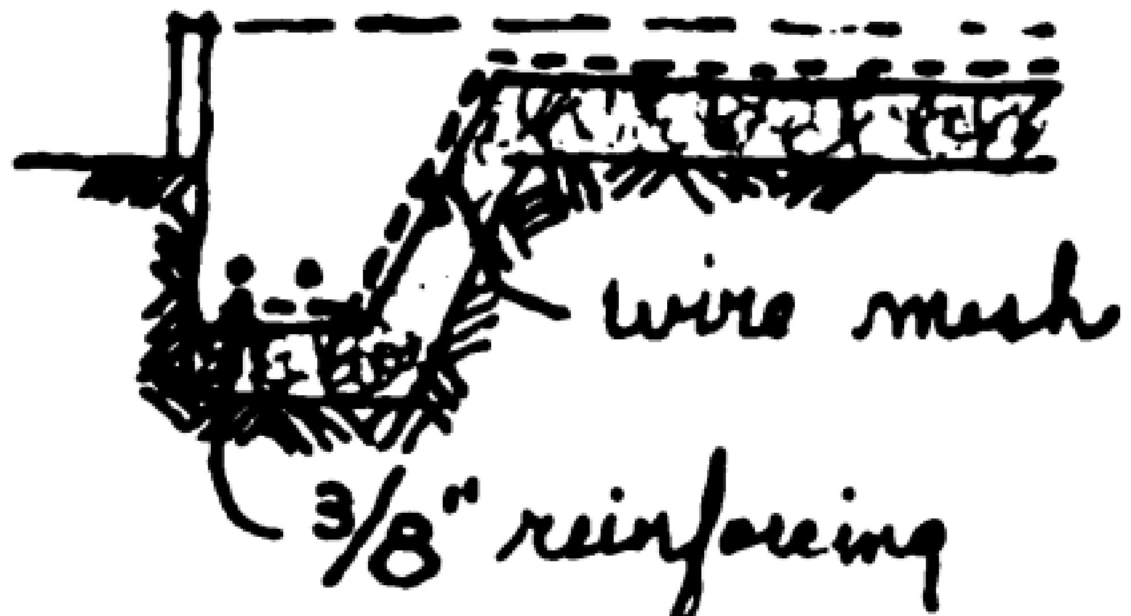
When the rock or gravel has been delivered, borrow the neighbors' wheelbarrow and start spreading it. The finished bed, in cross section, will look like the picture at the side. Don't stop now, you've only begun.

Get enough 15-pound roofing felt to cover the slab area. Cover the gravel area with this, lapping the edges about 3 inches. You're doing this, I might add, to keep the ground dampness from coming up into your finished slab.

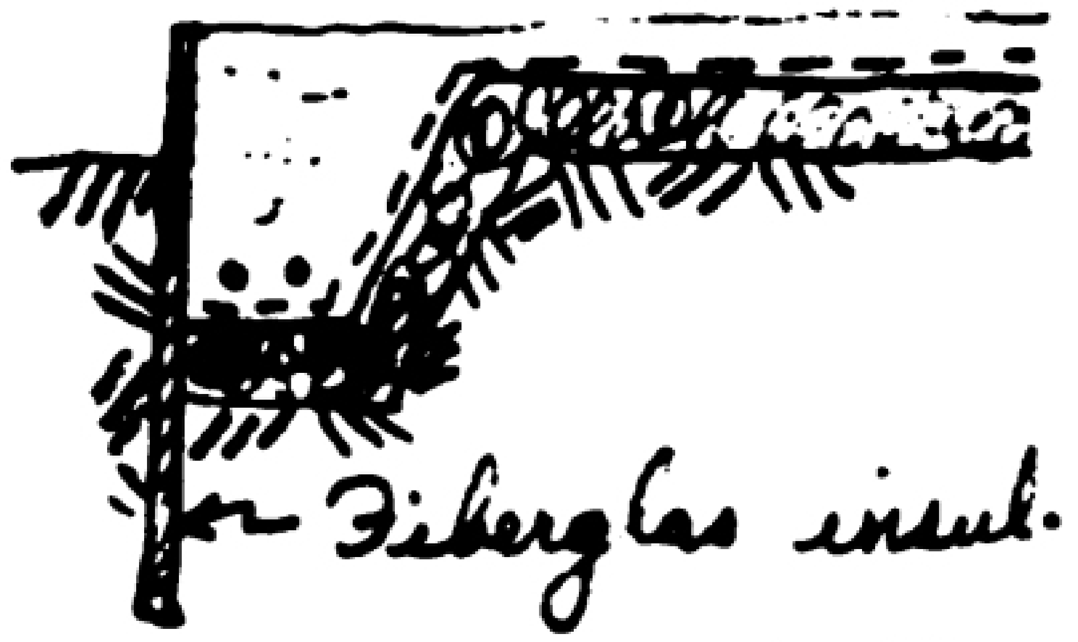
Around the outer edges of your cottage build a form as shown in the picture at the side. I assume that you didn't knock the walls of your trench in; if you did, be sure to clean them out again. You are now ready to lay the reinforcing down. The usual procedure is to use wire mesh weighing 40 pounds per 100 square feet. If you can't get it, the best substitute that I have seen is heavy turkey wire (welded type). Roll out the mesh. Put some small rocks under it so that when the concrete is poured, the mesh will be in the slab. Along the bottom of the trench use two ⅜-inch reinforcing bars. You're actually building a concrete beam around the perimeter of the building.



Add form board to trench



Add reinforcing bars and wire mesh



Use insulation around perimeter

You are now ready for the big pour. By this time you will probably be willing to call for transit mix. When you ask for this prepared mix, tell them you want the kind that reaches a minimum compressive strength of 2,000 pounds per square inch in 28 days. If you are going to mix your own concrete, use 1 part portland cement, 2 parts sand, 4 parts coarse aggregate, and enough water to make it sloppy. The actual water content should not exceed 7½ gallons per bag of cement. The table will help you to figure how much you will need. The thickness of the concrete slab should be a minimum of 3 inches. After you have the framing up, you will want to add one more inch of smooth concrete for your final finish (1 part cement, 3 parts sand). You can also add color to this batch if you don't like the natural gray of the concrete.

There you are. Except that you should also put some 6-inch stove bolts along the outer edge of the slab, about 8 feet on center, starting roughly 1 foot from the corner, to fasten your sill. If you are going to use the cottage year-round and are building in the northern states, insulate the outside perimeter with Fiberglas boards.

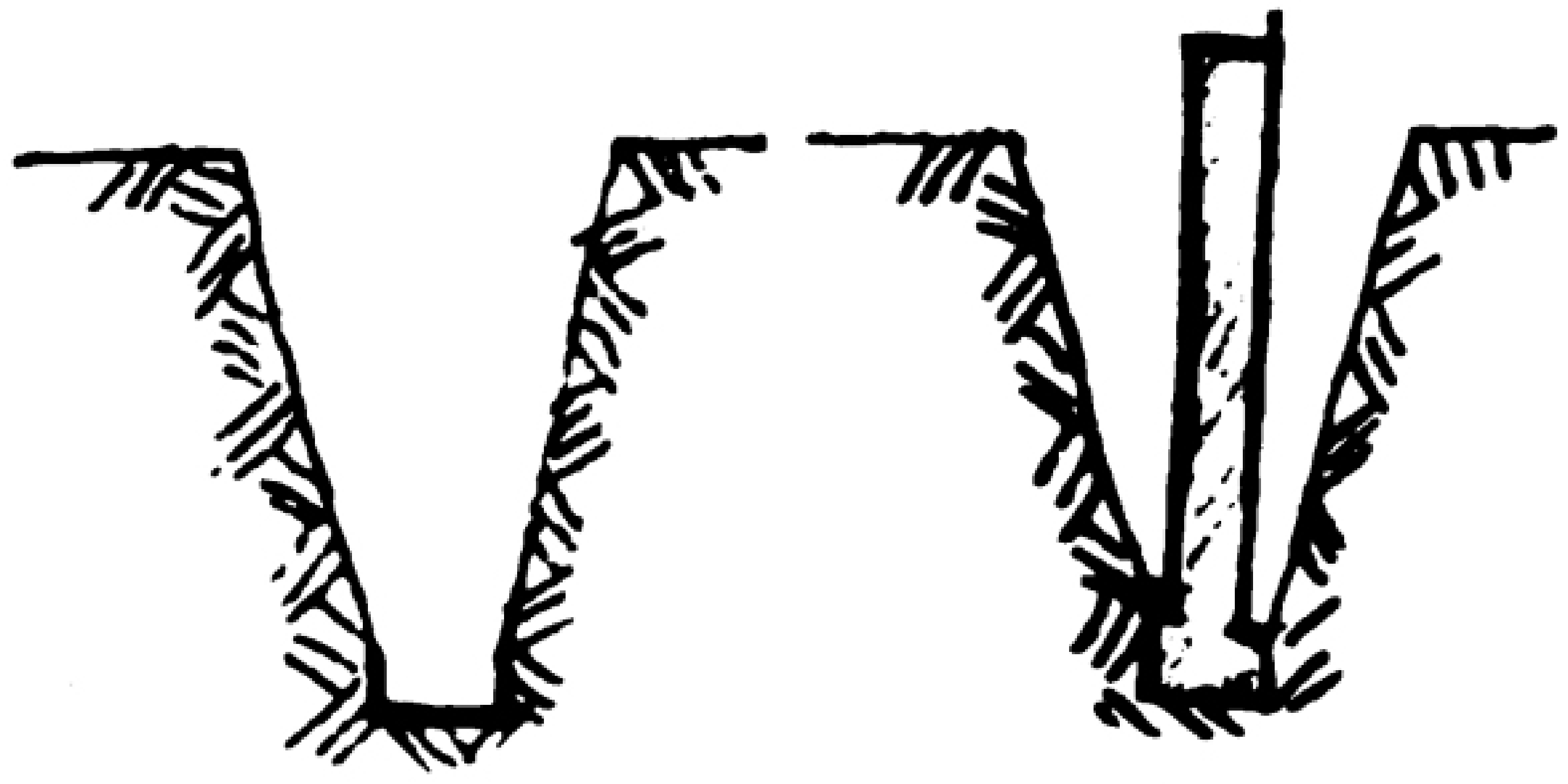
If you use the slab described, be sure that the soil is porous. Heavy clay or stiff soil will require the building of foundation walls to the frost line to prevent heaving.

FULL FOUNDATION

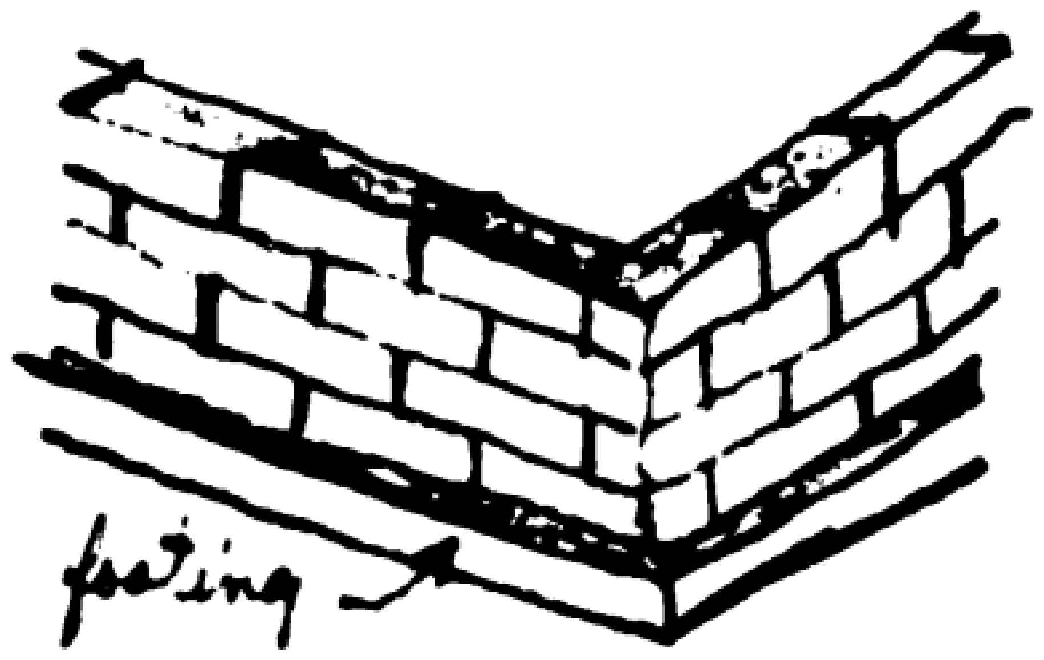
This type of foundation sounds easier to build than a slab. The only catch is that you'll probably have to do a lot more digging. This is especially true if you live in the northern part of our country. A little north of New York City we usually extend our foundations down 4 feet. You'll want to find out how far down the wall and footings should go; the local building inspector or mason can tell you. With this information in mind, lay out the outlines of the building as described above and start digging. The walls that form your foundation will probably be built of 8-inch concrete block. This wall should rest on a footing. The illustration at the side shows one way such a footing can be made.

Like the beam described above, the dirt may be cut square and be used as the form. The footing should be at least 6 inches thick and project 2 or not more than 3 inches beyond the thickness of the wall. This concrete footing is made of 1 part portland cement, 3 parts sand, 5 parts coarse aggregate, or a transit mix that will have a minimum compressive strength of 1,500 pounds per square inch in 28 days.

If you are making the walls of block, the mortar you should use is composed of 1 part portland cement, 3 parts sand by volume, and lime not exceeding 25 per cent of the cement by volume. Stagger the blocks so that the joints of the second row of blocks fall over the mid-sections of the blocks below. Use closed-end blocks for corners. Moistening the blocks before laying them will help hold the mortar. Pour concrete into the top row of blocks and insert 6-inch bolts, 8 feet on center, for the sill.



cut edges of footing square and use as form



stagger the blocks

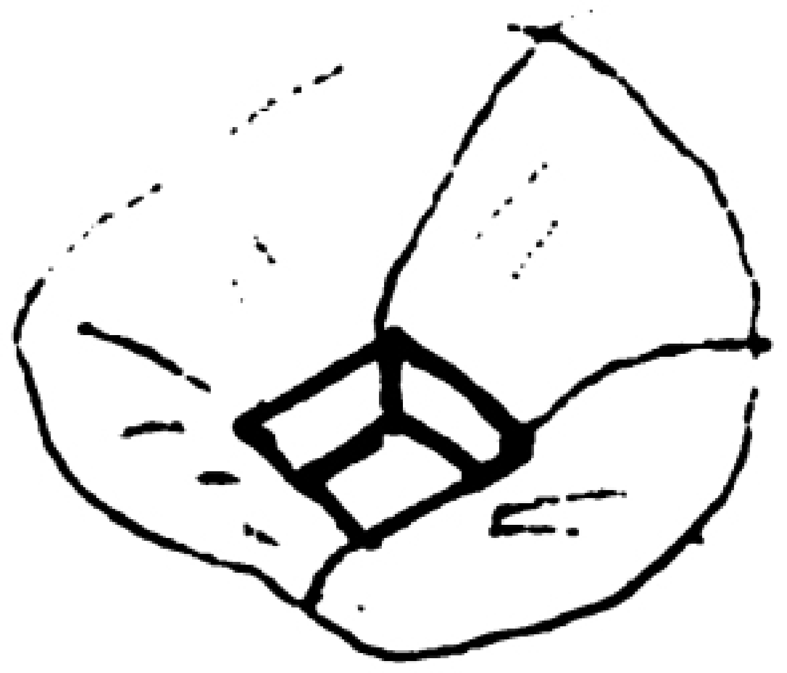
PIERS

This is the type of construction you will probably use. It is the quickest way to get your summer home under way. Each cottage unit in this book has a pier plan which you should follow.

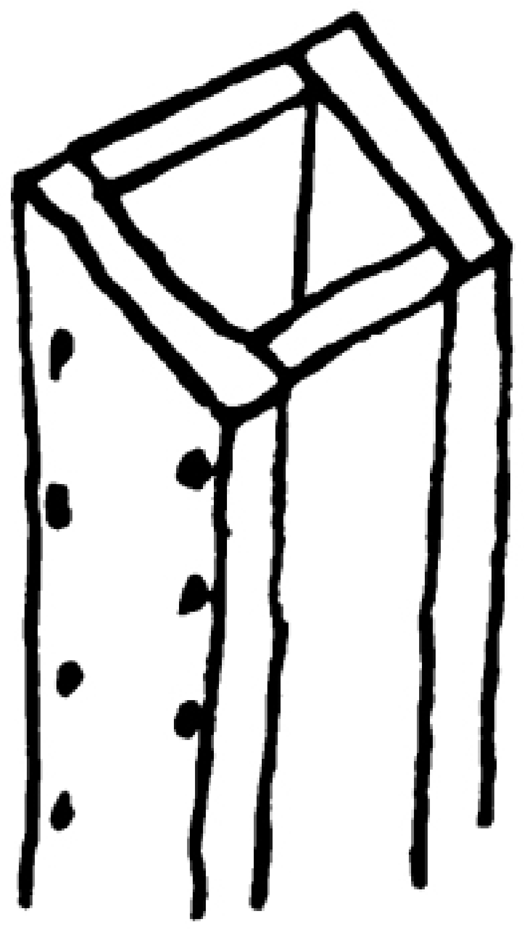
There are several rules to remember about piers. They can be built of block (8 by 8 by 16 inches) or of solid concrete. Piers require foundation footings just as walls do.

Take the advice of the local building inspector on the depth they should extend below grade. You'll want to have the footing below the local frost line. The illustration at the side shows the usual arrangement for the footings. Poured concrete piers should be 10 by 10 inches if square or 12 inches in diameter if round. I have seen a posthole digger used to make the hole for a round pier. It worked. The only trouble is that the center of the pier is the used part and some portion of the pier will project beyond the building line. The proper mix is the same as for footings mentioned above. The maximum height above grade that you should build a pier is four times its least dimension. If the pier on the low side of your camp is 6 feet, the pier size should be increased to 18 inches square. The forms for solid concrete piers may be made from any old lumber. The illustrations at the side should show you how.

Take your choice of these three ways to build your foundation. Some may ask why I haven't mentioned wood post construction. I'm not convinced that they are worth using except above grade. If you must use wood, be sure that you get pressure-treated posts. Dipped or painted ends are little protection.



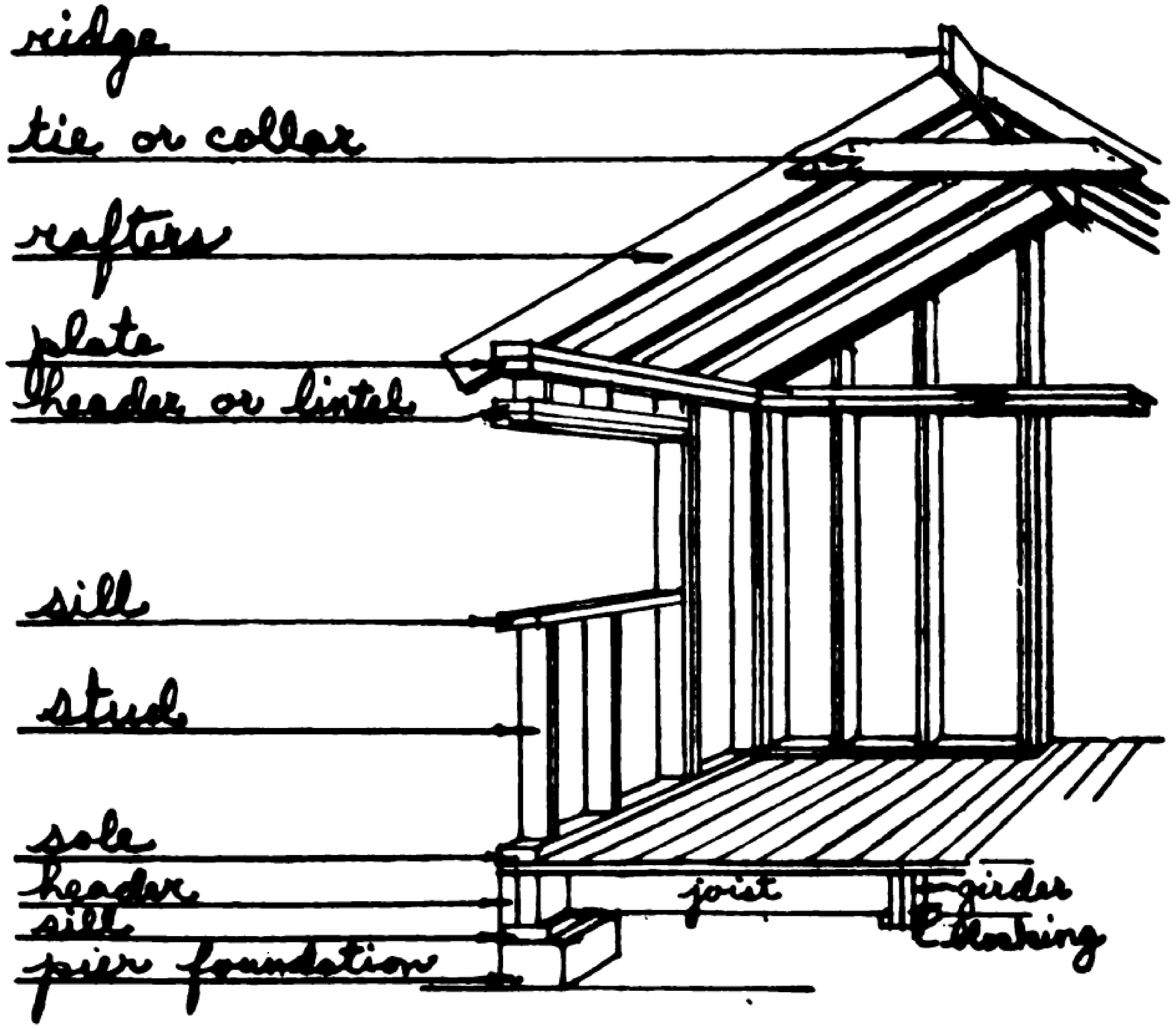
dig a hole
and cut a square
cornered bottom
for form of
footing



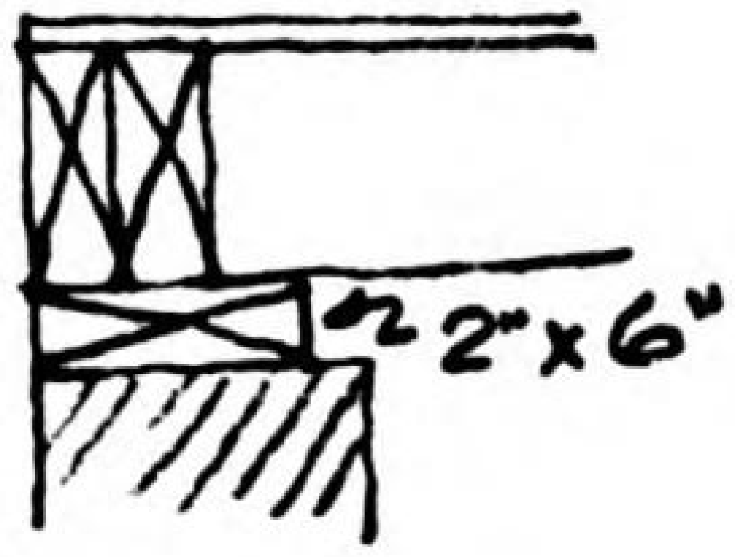
nail four
boards together
to make form

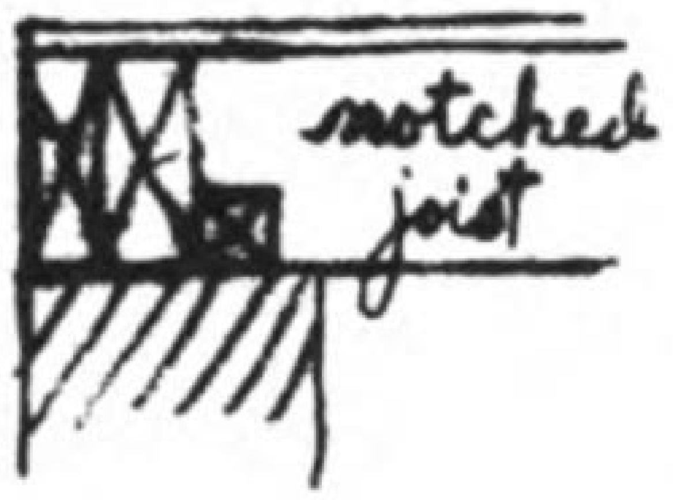
FRAMING

Framing is the structural skeleton of your house. The drawing at the top indicates the important framing members of any of the cottages. The most important elements are the sill, header, joists, girders, sole, flooring, studs, plate, and rafters. Let's take a look at these parts.



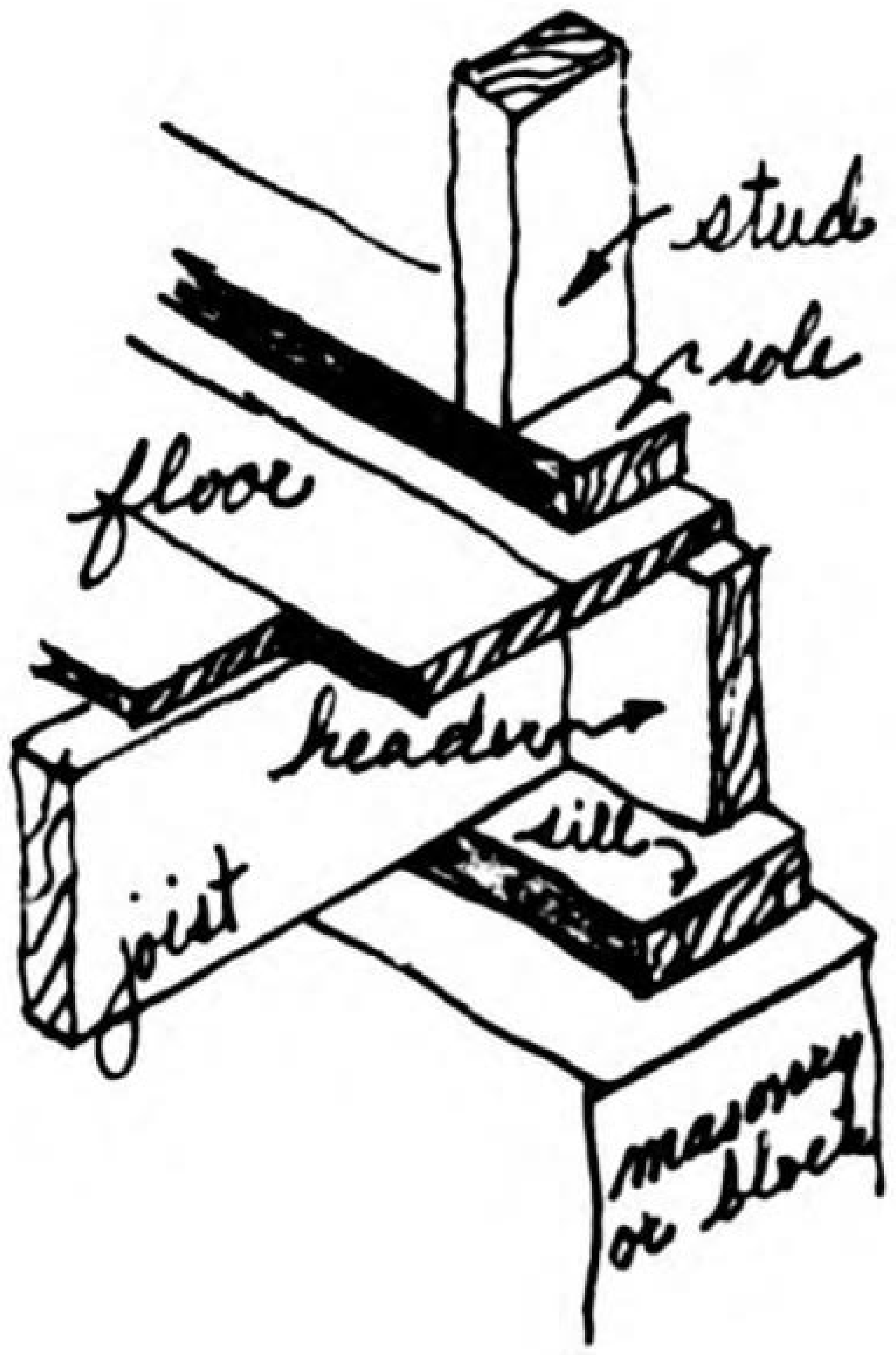
SILL Except in the case of concrete slab construction, the sill is the first wood member to rest on the foundations and will be the first wood member you will put down. The sill is usually a 2-by-4-inch piece. In pier construction you will note that I have occasionally used a 2-by-6-inch member. This is because the header is made up of two pieces 2 inches thick, instead of one, as shown in the illustration.

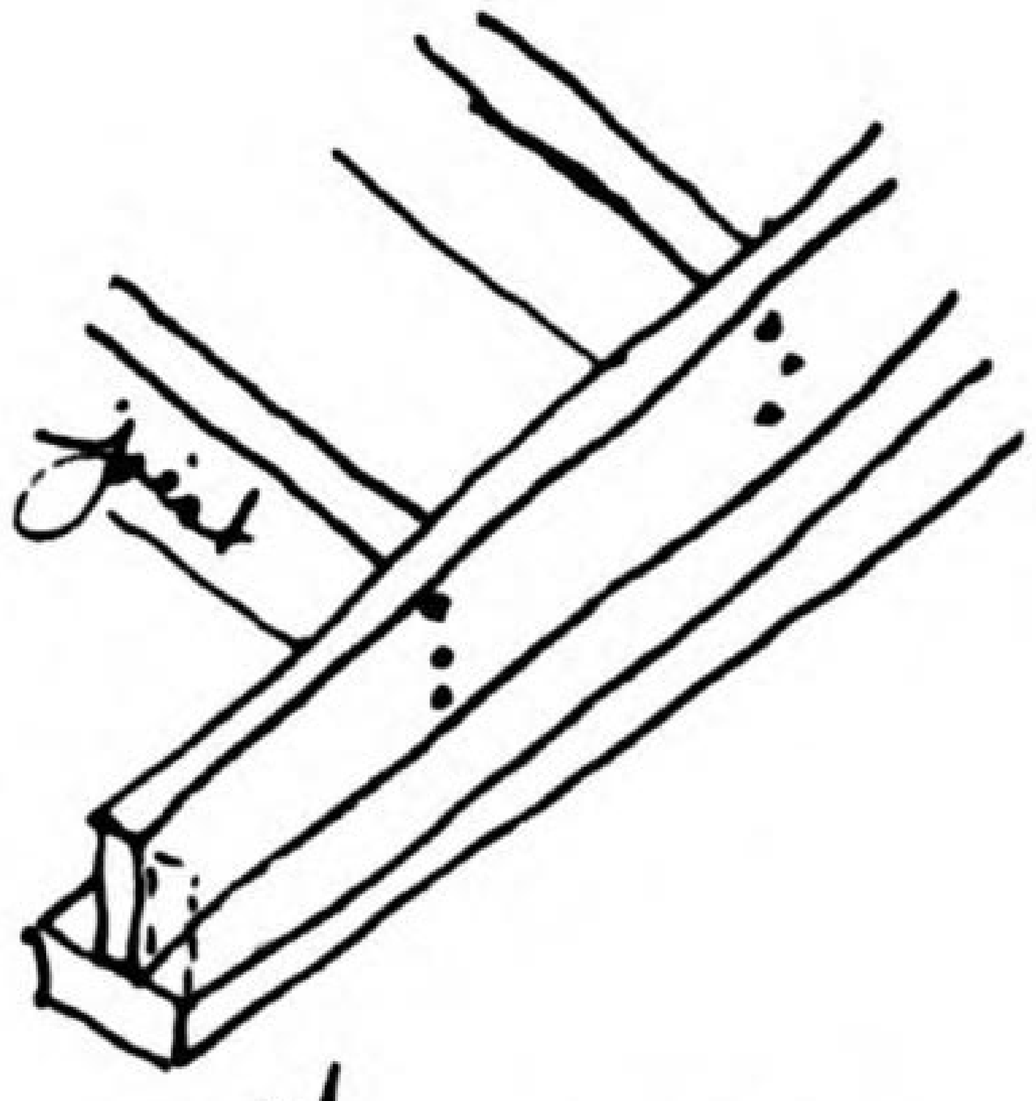




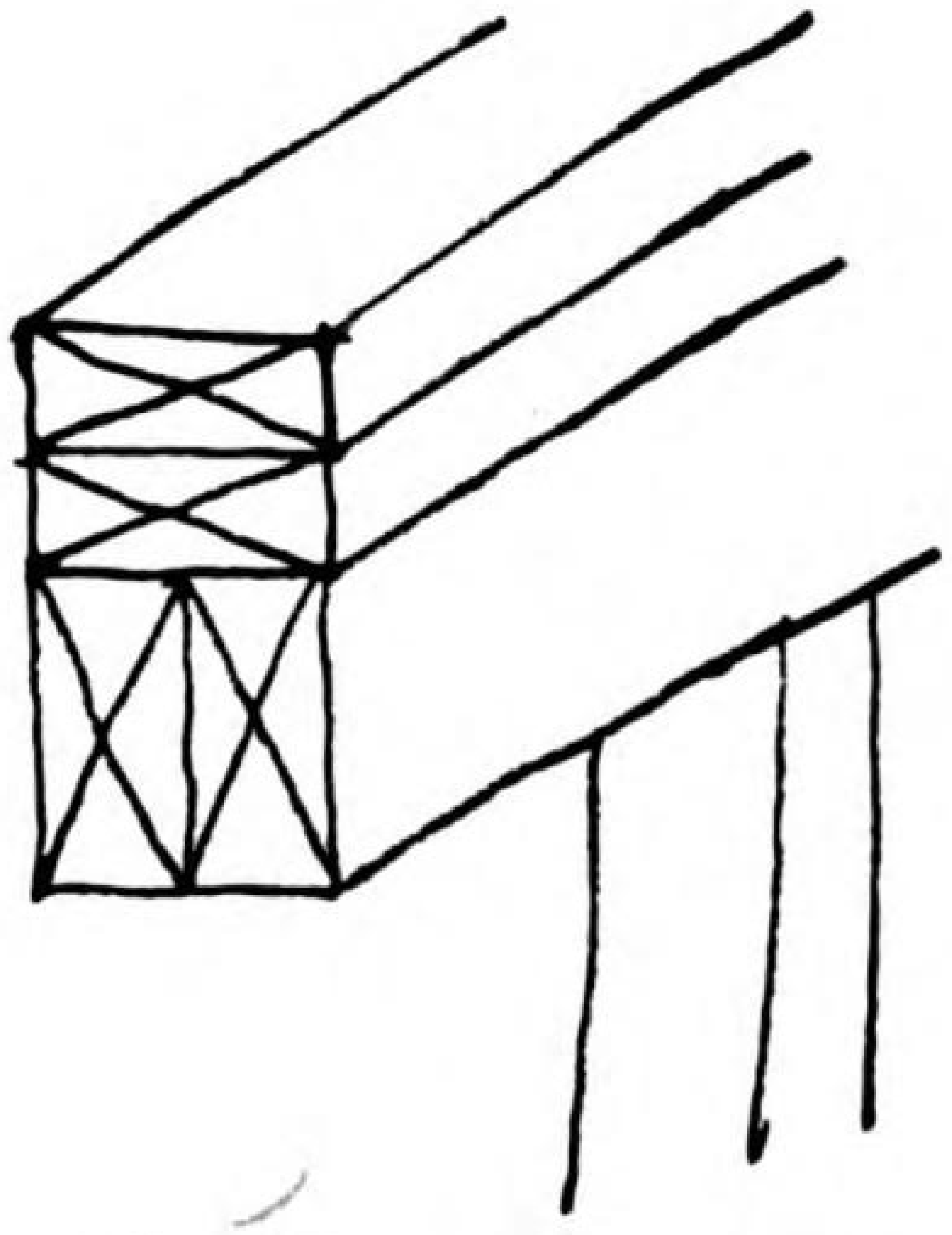
Sills form a bearing surface for the undersides of joists. They should be bolted to the slab or wall foundations. If you are using pier foundations, it is important that you first put down the sill around the building, then spike the inner header to the sill from the underside. After this is done, lay out the joists and securely spike the inner header to them. At the corners, stagger these two parts. Then spike the outer header to the inner one, overlapping at the staggered corner edge. What you have done is to build a girder with a resting place for the joists.

HEADER Headers, except as noted above, are usually 2 inches thick and the same width as the joists. They run around the outside perimeter of the building and help keep the joists in a vertical position. They also help to transmit the roof and wall loads to the foundation. The notched joist arrangement is used when no sill is provided. The blocking provides a bearing spot for the joists. If you use pier foundations, be sure to follow the sectional drawings for each cottage, because this header may actually be a girder around the outside of the building. Also be sure that the joists are securely spiked to the header. Try, as far as possible, to make the headers of one continuous piece of material. If this isn't possible, be sure to join the pieces over the center line of one of the piers.





spike inner header to joist first — pier construction



Header over door or window

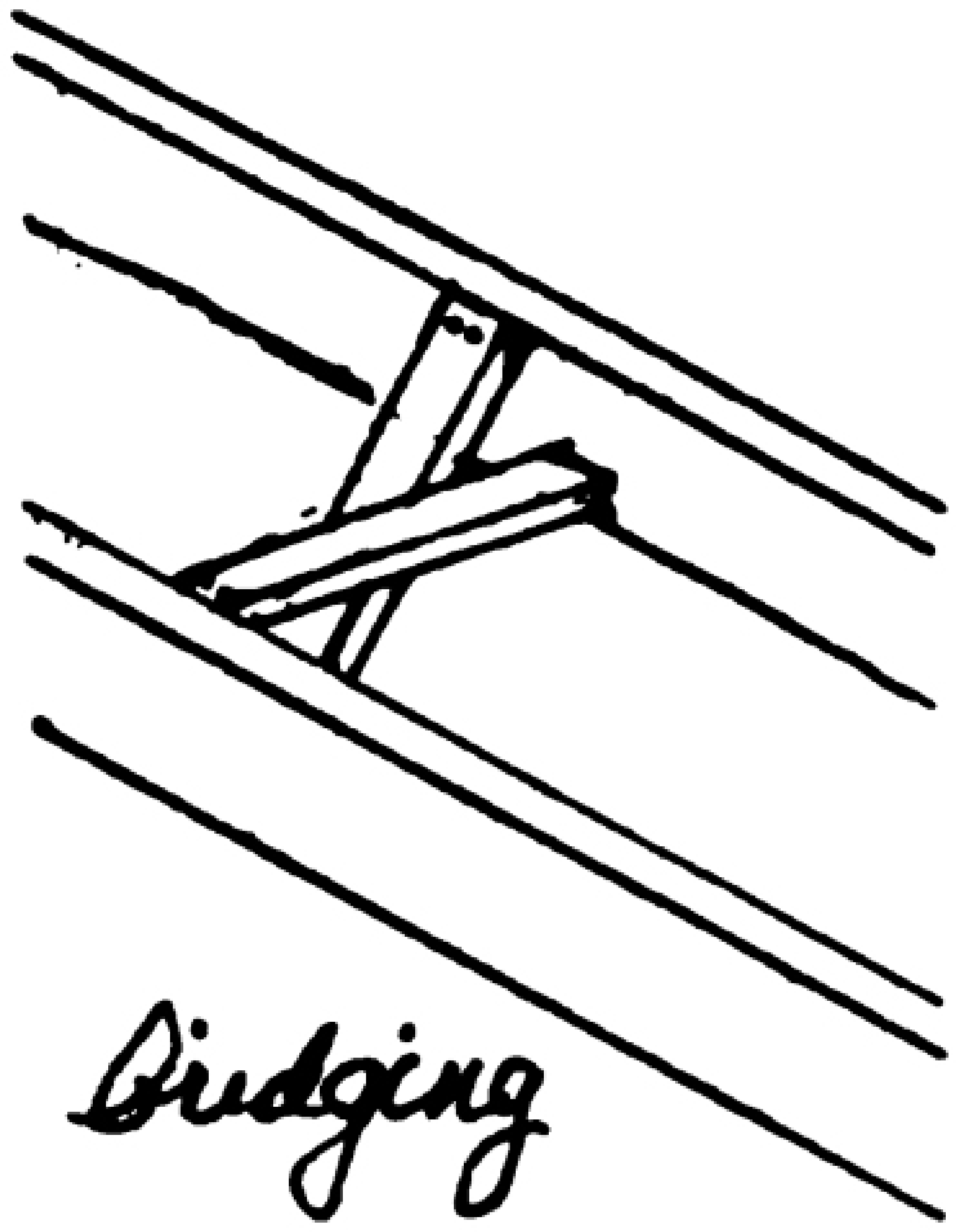
Original from UNIVERSITY OF CALIFORNIA

JOISTS

These members are what your flooring will rest on. The sizes applicable to each building are shown in the sectional and plan drawings. In most cases they are 2-by-6-inch members laid 16 inches on center. I have tried to design all the camps so that it will not be necessary to cut most of the joists. They are standard lengths which you can purchase from your local lumberyard.

Because the joint spans are short, it isn't necessary to bridge the members. However, if you want a really good job, put 1-by-3-inch pieces of lumber between joists as shown in the sketch at the side. You can also buy metal bridging if you would rather use it. Bridging is usually done every 8 feet along the length of the joist.

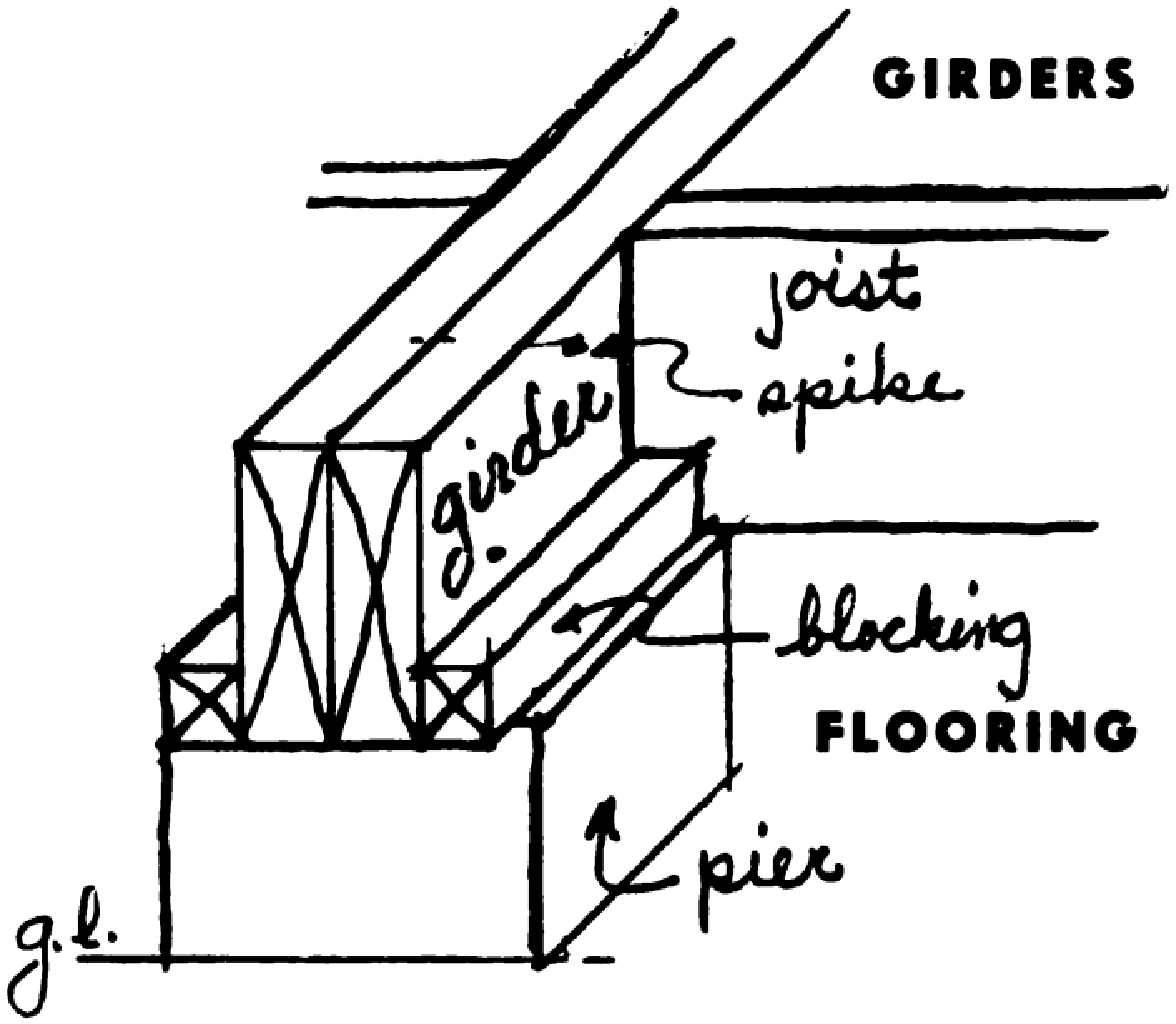
The floor joists in this book have been designed to take a uniform load of 40 pounds. The fiber stress (*f*) is 900 or over. Don't worry your head about these figures. What it means to you is that you should use Douglas fir (Coast Region or Inland Empire), West Coast hemlock, Western larch, Southern yellow pine, redwood, oak, or any other wood having the necessary characteristics. Most yards carry either Douglas fir or hemlock for framing purposes.



GIRDERS

Girders are used to support concentrated weight. Sometimes they appear at the outer edge of the building in pier foundation work. More often they are at some mid-point of a joist span. The use of girders permits joist members to be smaller.

In most cases the girders in this book are made up of several 2-or-3-inch-thick members supported on piers. Solid members would be better but are harder to handle and aren't always readily available.



FLOORING

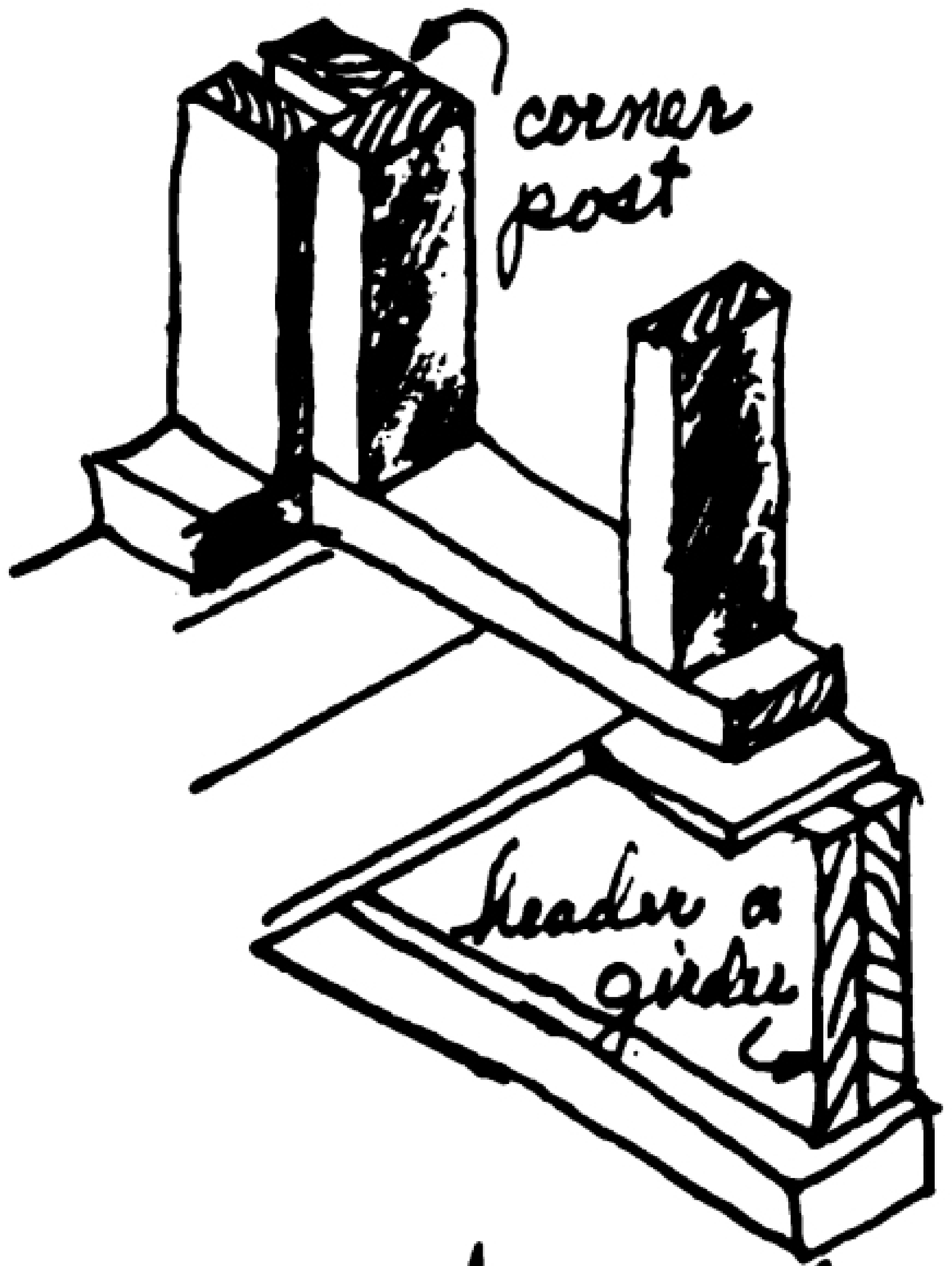
In the sectional drawing of each cabin I have shown only one ⅝-inch thickness of flooring. This is sufficient for most cottages. At a later date you may want to add either a composition or finished hardwood floor. The planks where a composition floor is to be laid should not be wider than 3 inches or may be ⅝-inch plywood sheets. All flooring should be tongue-and-groove except plywood.

SOLE The sole is run around the perimeter of the building like the sill, except that it is laid on top of the flooring and joists. A sole should also be placed under each partition. If the studs are placed so that their wide edges are parallel to the partition length, it will be necessary to cut the 2-by-4-inch sole to the 2-inch width of the stud.

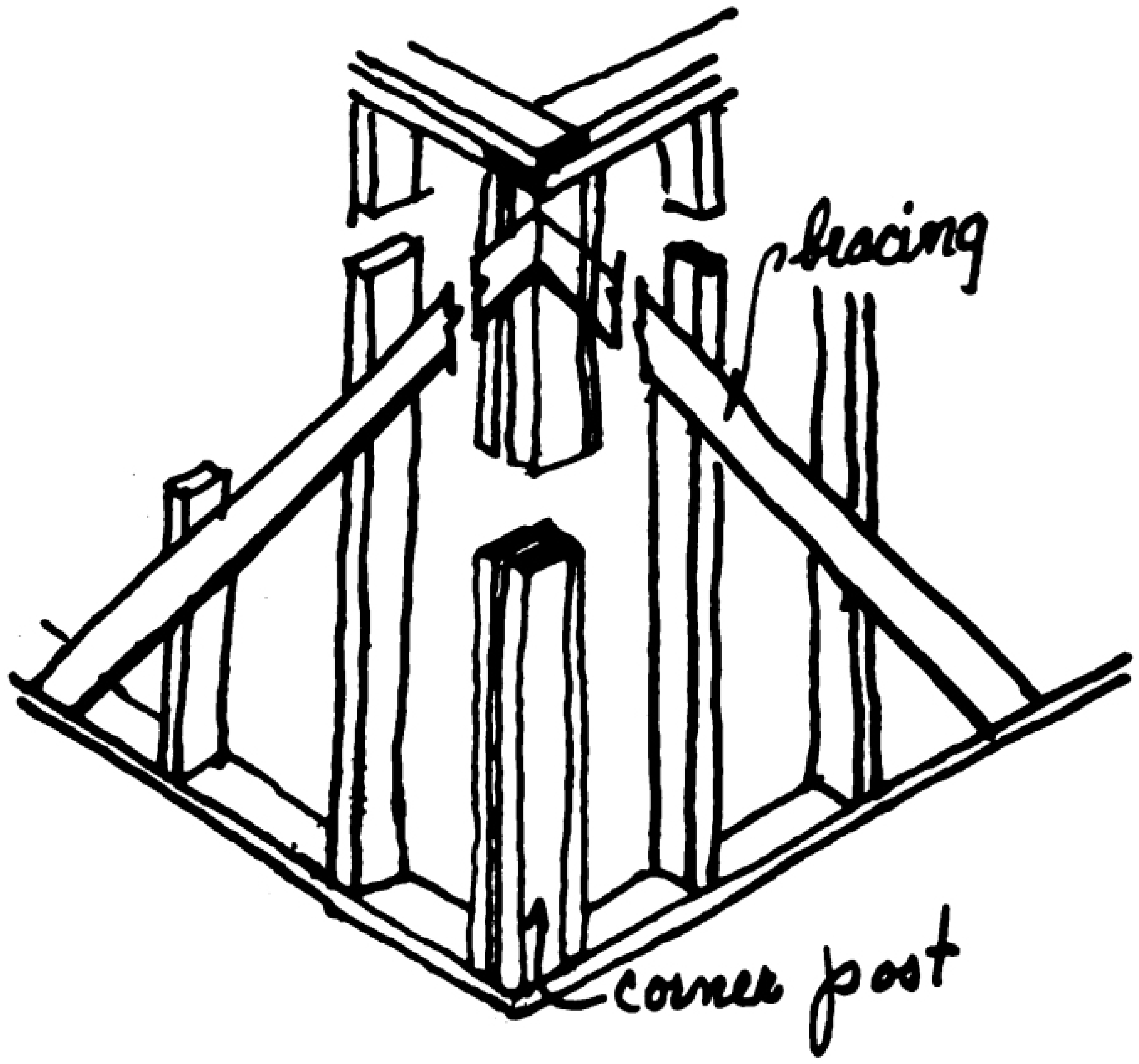
The sole helps to transmit loads to the joists, girders, and foundations. It also serves as a nailing surface for the interior finish. The studs will be nailed to this surface.

STUDS These members are usually 2 by 4 inches thick. They are available in lengths from 4 feet to 20 feet in multiples of 2 feet. They rest on the sole and are tied in at the top by a plate. The siding of your cottage will be attached to the studs.

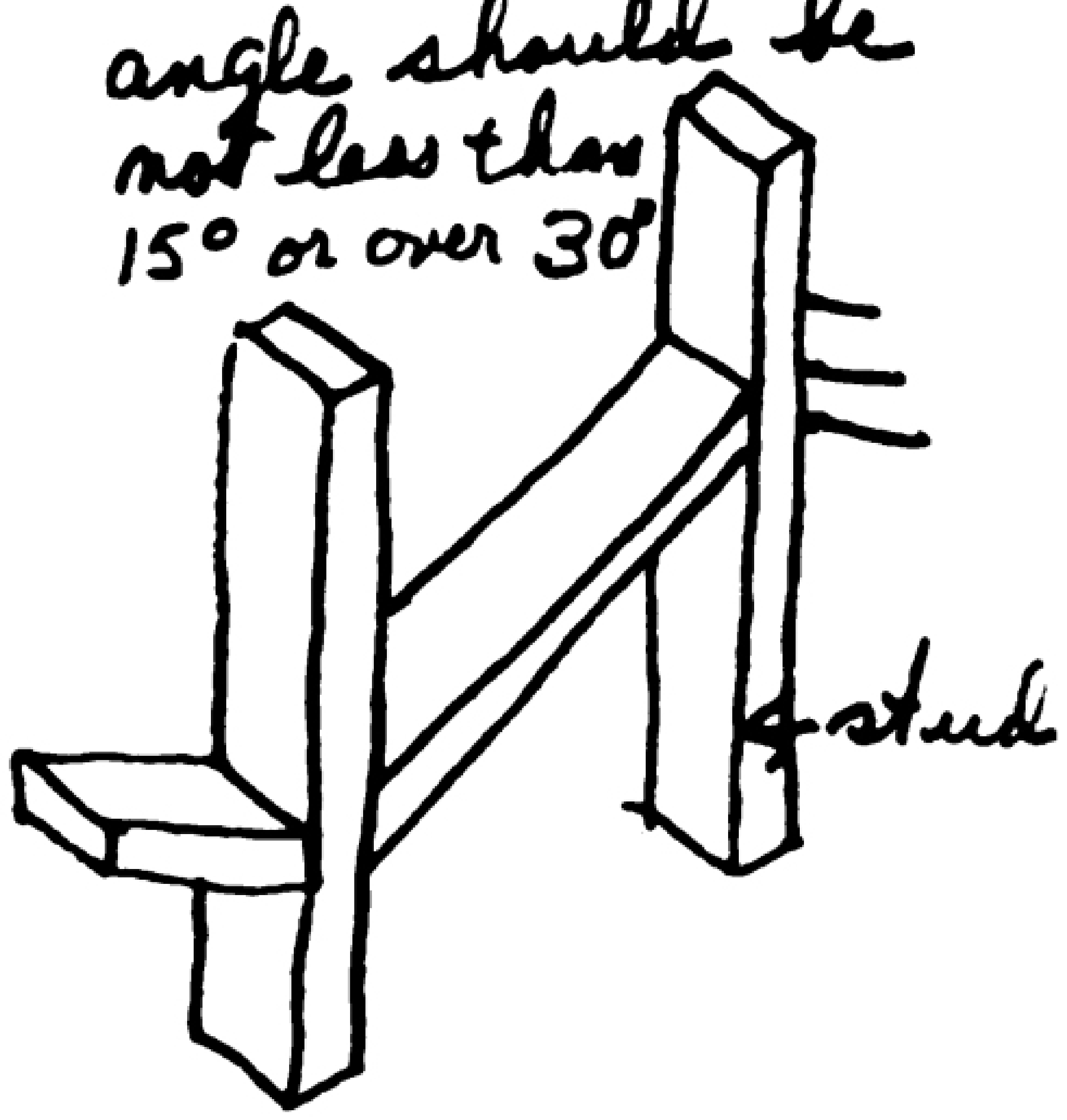
In the corners of your building use three studs as shown in the illustration. All door or window openings should have two studs on each side unless shown otherwise. The corners should be diagonally braced.



One type of corner post



Cut bracing into studs

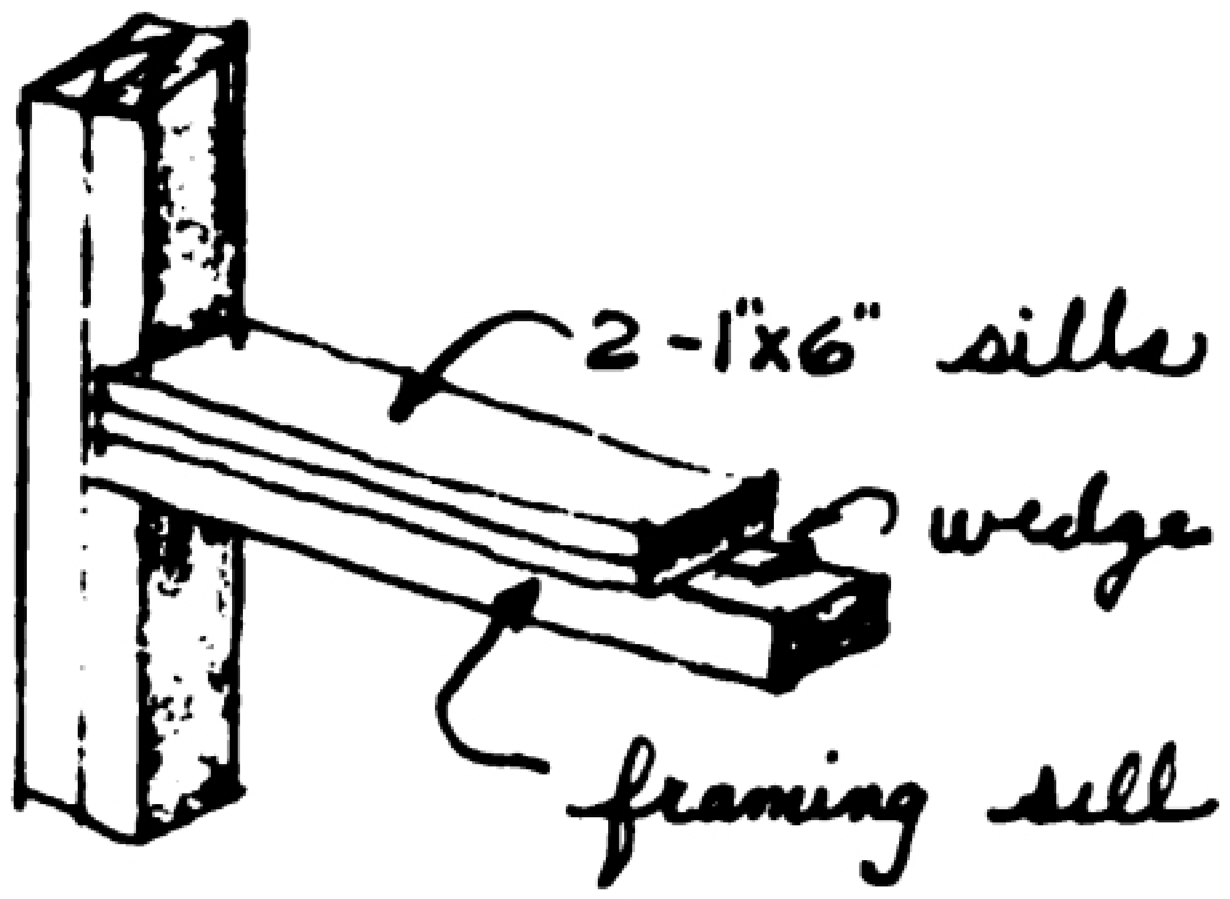


Bridging or bracing

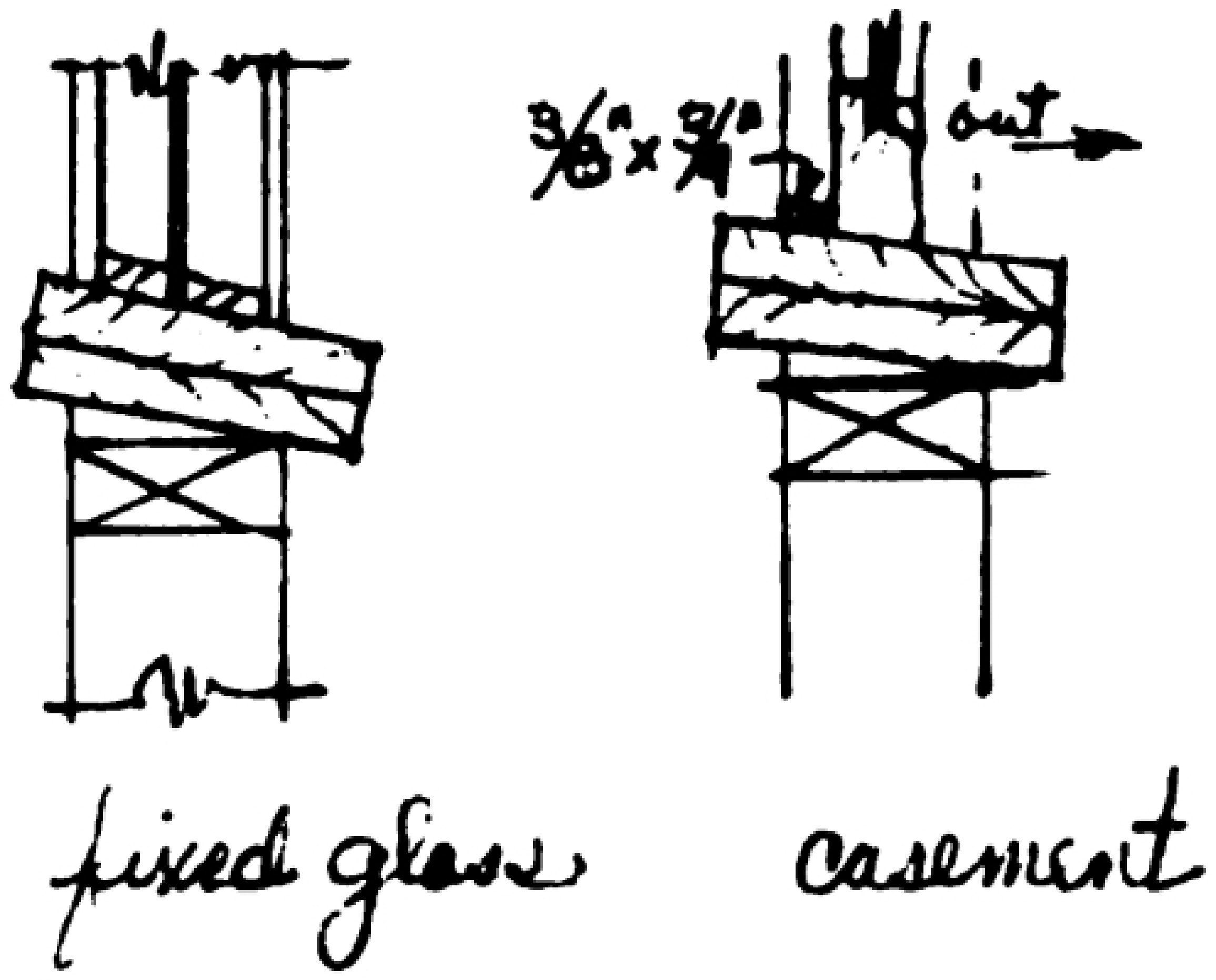
Original from UNIVERSITY OF CALIFORNIA

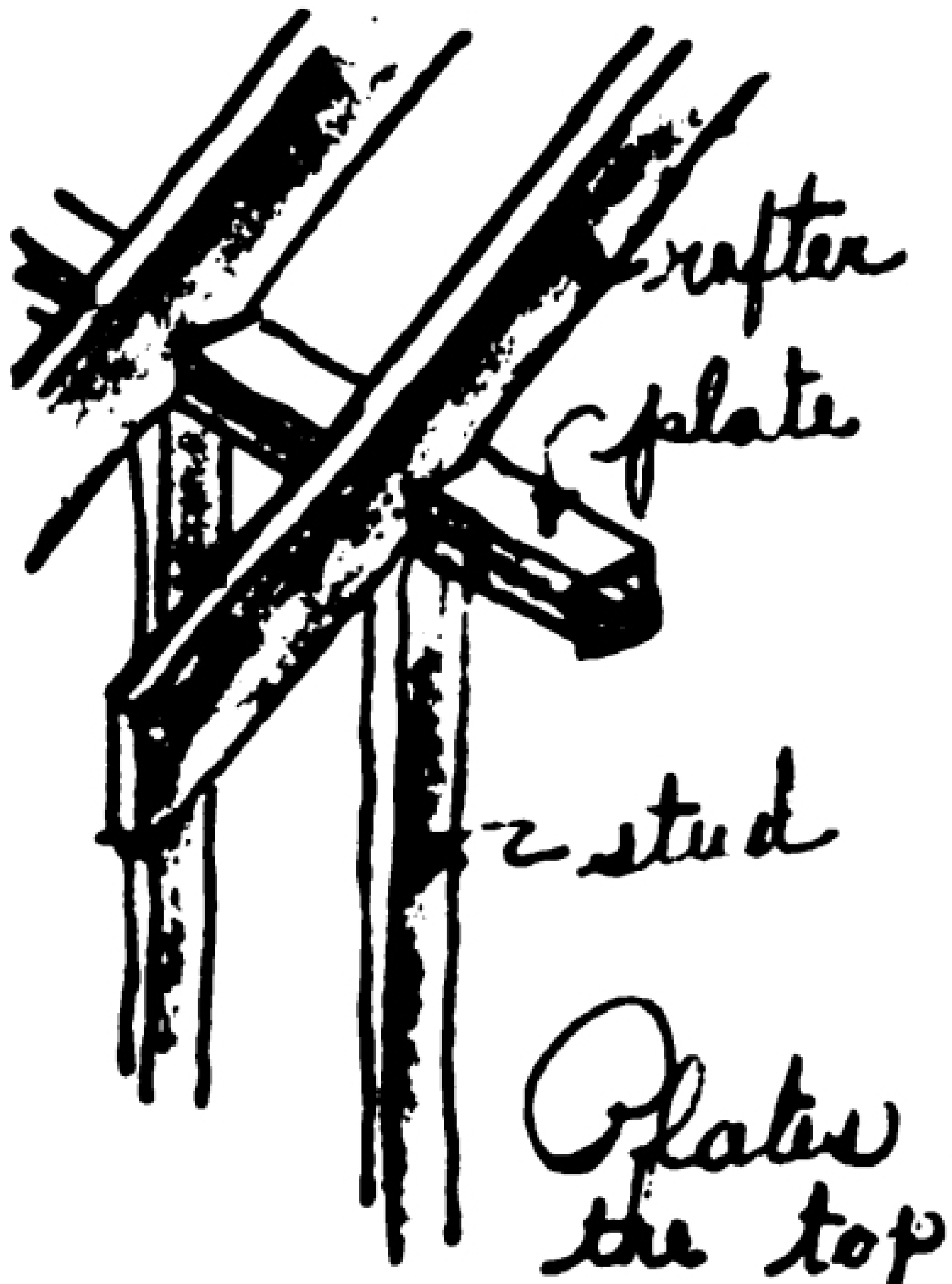
If you are going to use vertical tongue-and-groove siding as the exterior finish, be sure to use a herringbone bridging system as shown in the sketch. The purpose of this bridging is to stiffen the structure and to give an intermediate nailing surface for the vertical siding. Where sheathing is used, it is not necessary to use bridging. If the exterior finish runs horizontally, sheathing is optional and bridging is not necessary.

PLATE A double plate made of 2-by-4-inch material is essential for all the cottages in this book. This part of your construction is at the top of the studs, and it forms a support for the roof members. At the corners plates are notched or butted and spiked together. You will find that over door and window openings something has been added to the plate—a beam or additional support to take the extra load of the span.



one way of making a window sill



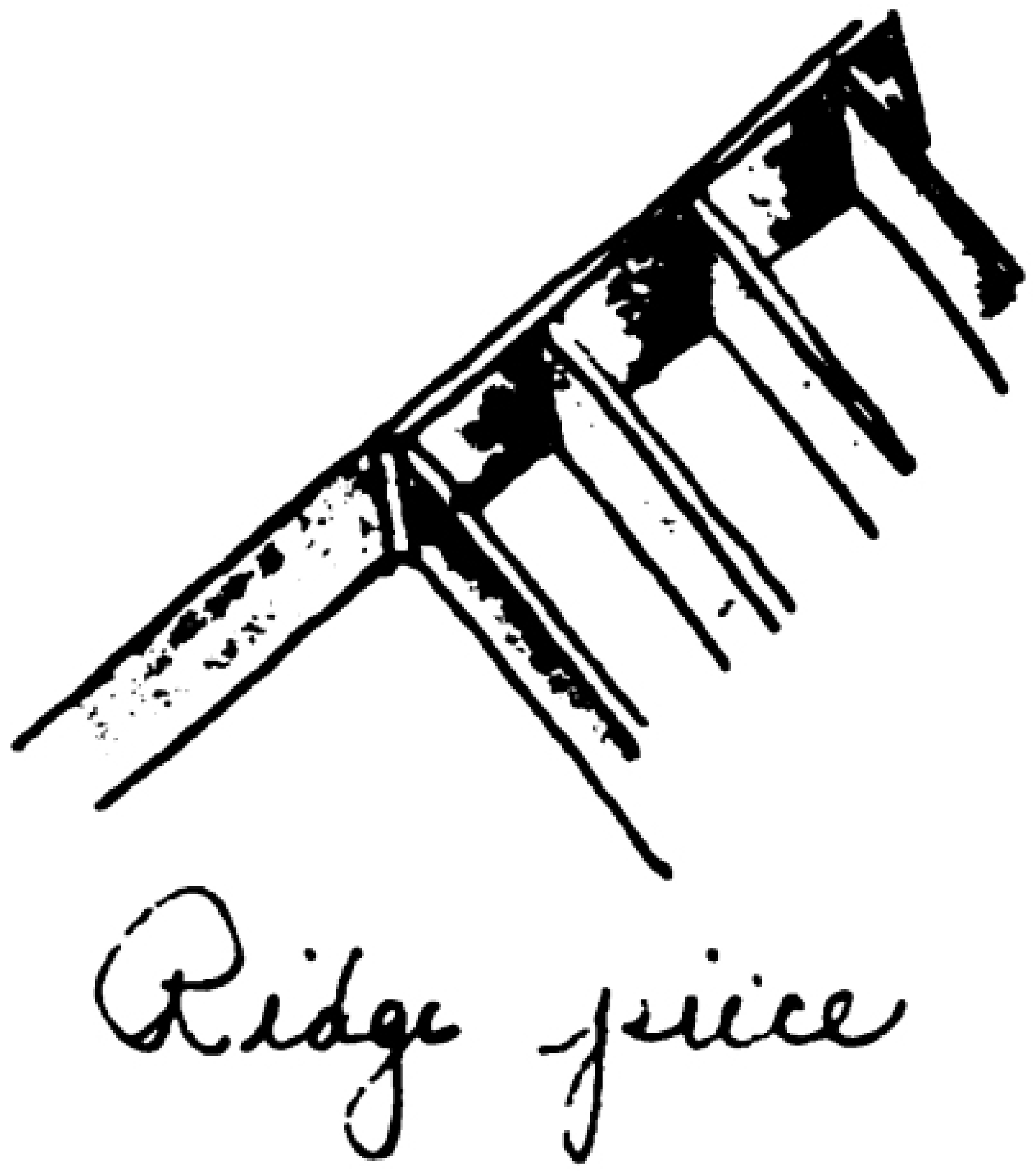


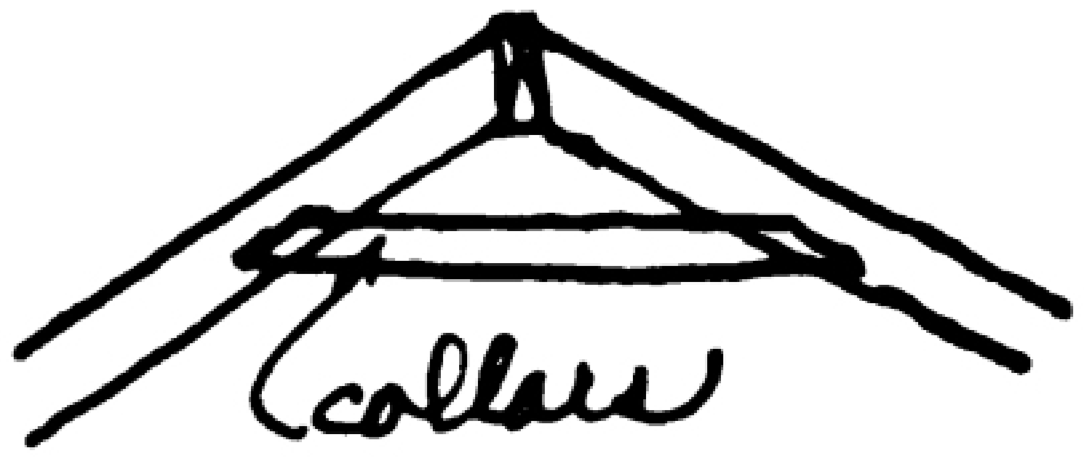
Plates are at the top of studs

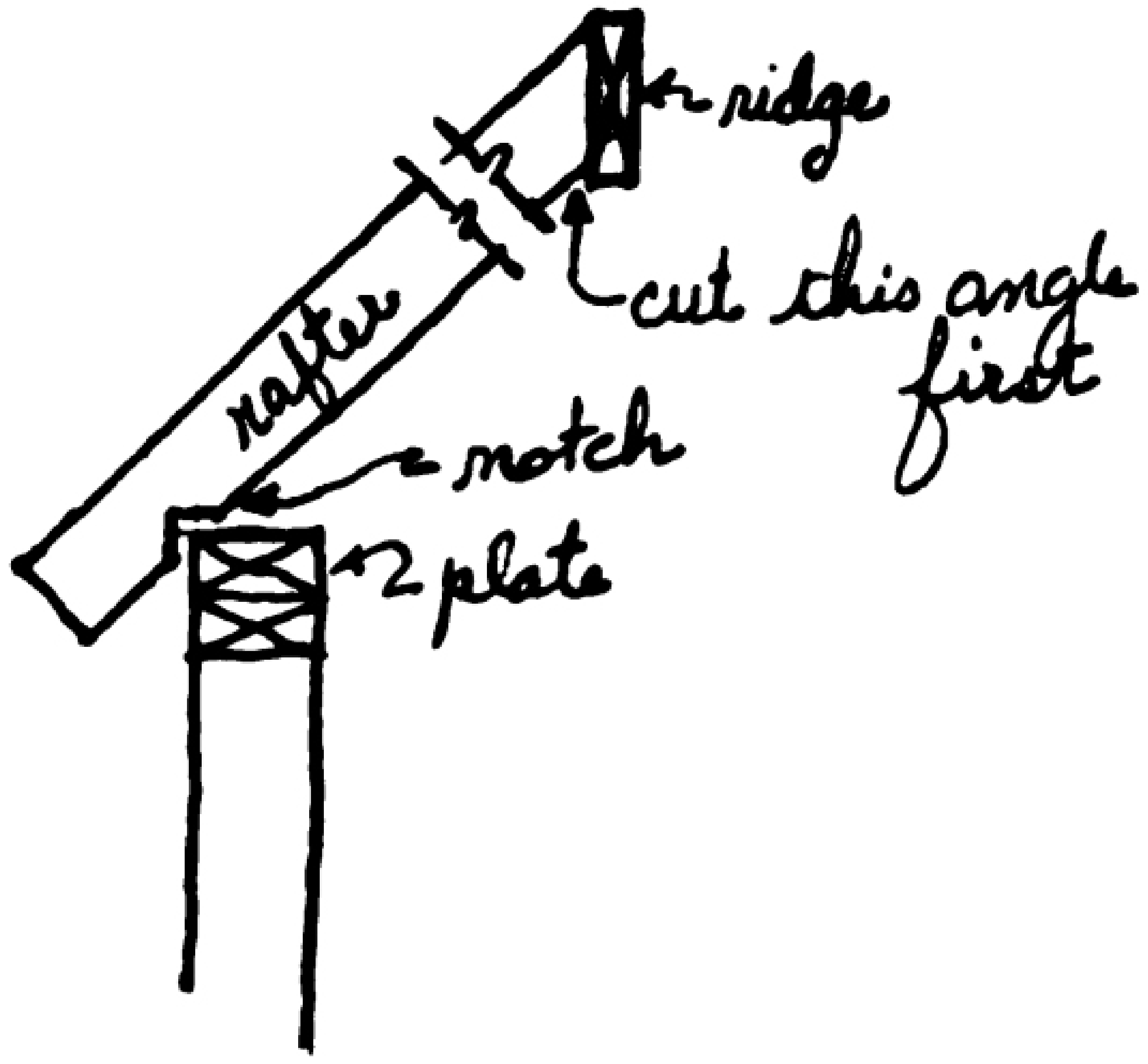
RAFTERS Supporting members for your finished roof are called rafters. In the case of single-slope roofs, they look and act like floor joists. A pitched roof has the rafters running from the plate at the outer edge to the ridge piece. Like the floor joists, the roof rafters in this book have been designed to carry a load of 35 pounds per square foot and are based on a fiber stress of 900 or over. Most members are 2 by 6 inches. If you live in an area of very heavy snowfalls, you will want to increase the size of the roof members (probably 2 inches in depth), but in most of the United States the sizes shown are adequate.

When there is a pitched roof on the house and the ceiling follows this pitch, be sure to use collars or crosspieces as shown in the illustration. These should be less than 5 feet on center. Collars keep the pitched roof from pushing out the sides and are usually 1-by-6-inch boards.

When erecting a pitched roof, nail the end rafters to the ridge and plate first—this will give you a nailing surface for the other rafters. You can also use one of the end rafters as a pattern for notching the rest of the rafters.







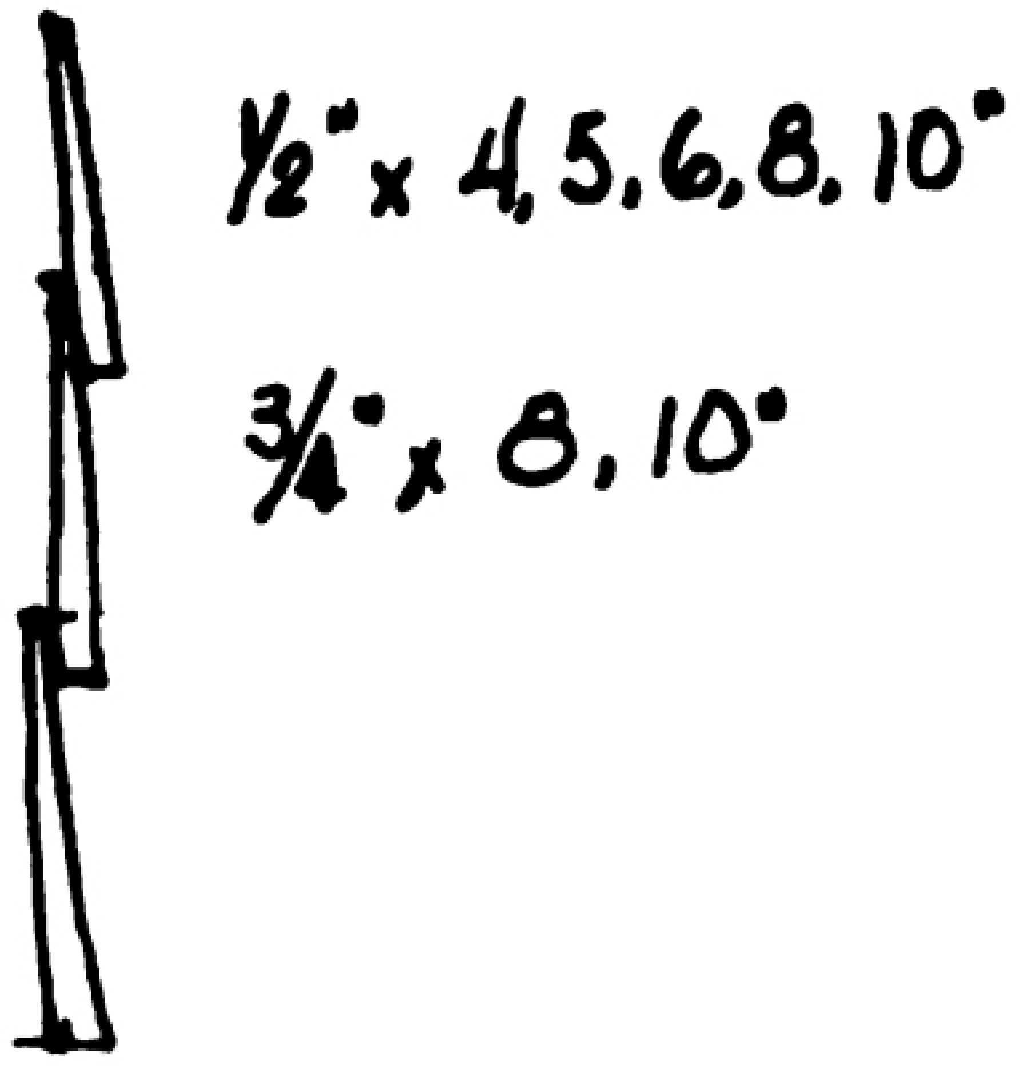
ROOFING After the rafters are in place, you will be ready to put on the roof boards. These boards can be ⅝-inch by 6- or 8-inch tongue-and-groove boards. There are some exceptions to this which are covered in the next section.

EXTERIOR AND INTERIOR FINISHING

SIDING

Probably the most practical and easiest material to use as the exterior finish is wood. It has the advantage of coming in many different shapes, colors, and textures. It can be stained, painted, or left natural.

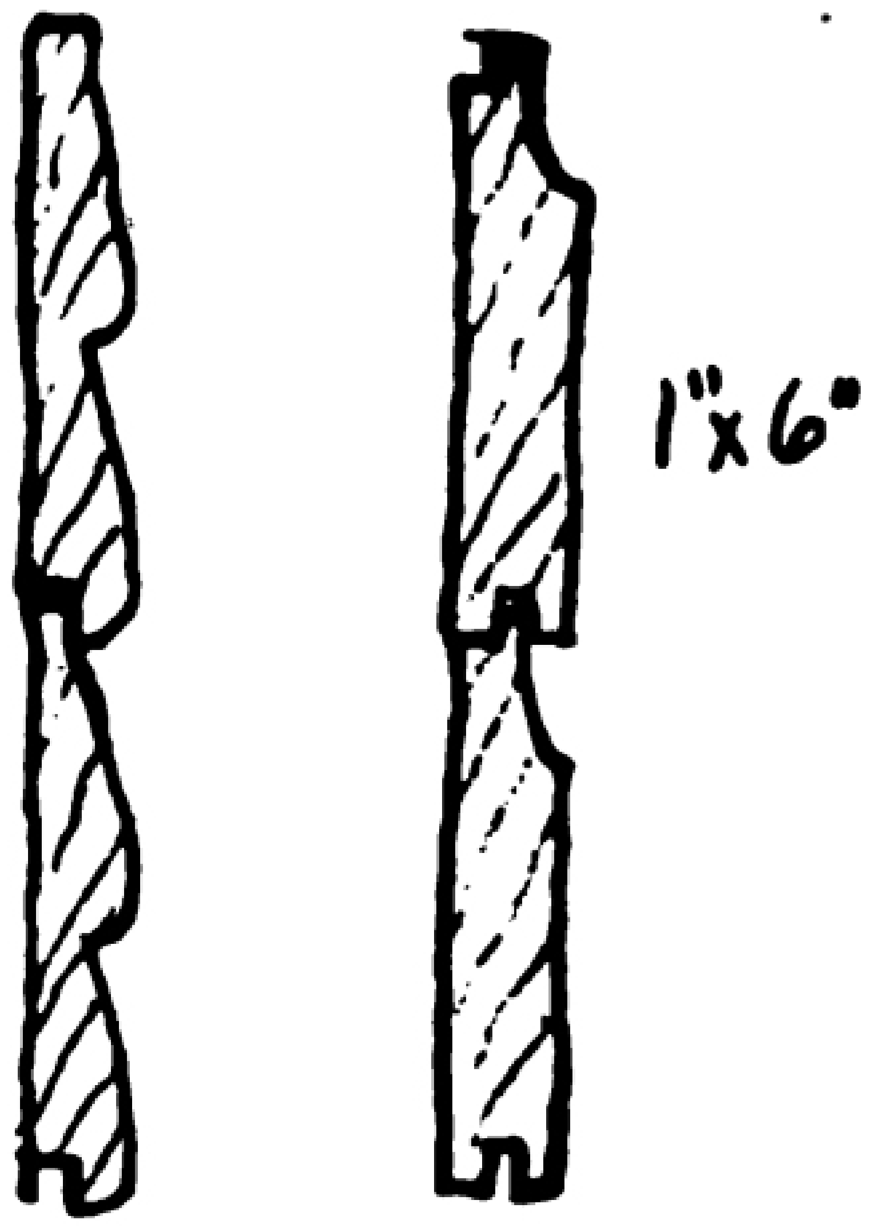
As noted in the framing section of this book, I have not specified that sheathing must be used. Plywood or one of the composition sheathings or diagonal sheathing boards may be used—in fact, should be used if you plan to use the cottage year-round at some time in the future. It should also be used if you are going to use plaster or plasterboard on the inside. The sheathing helps to stiffen your structure.



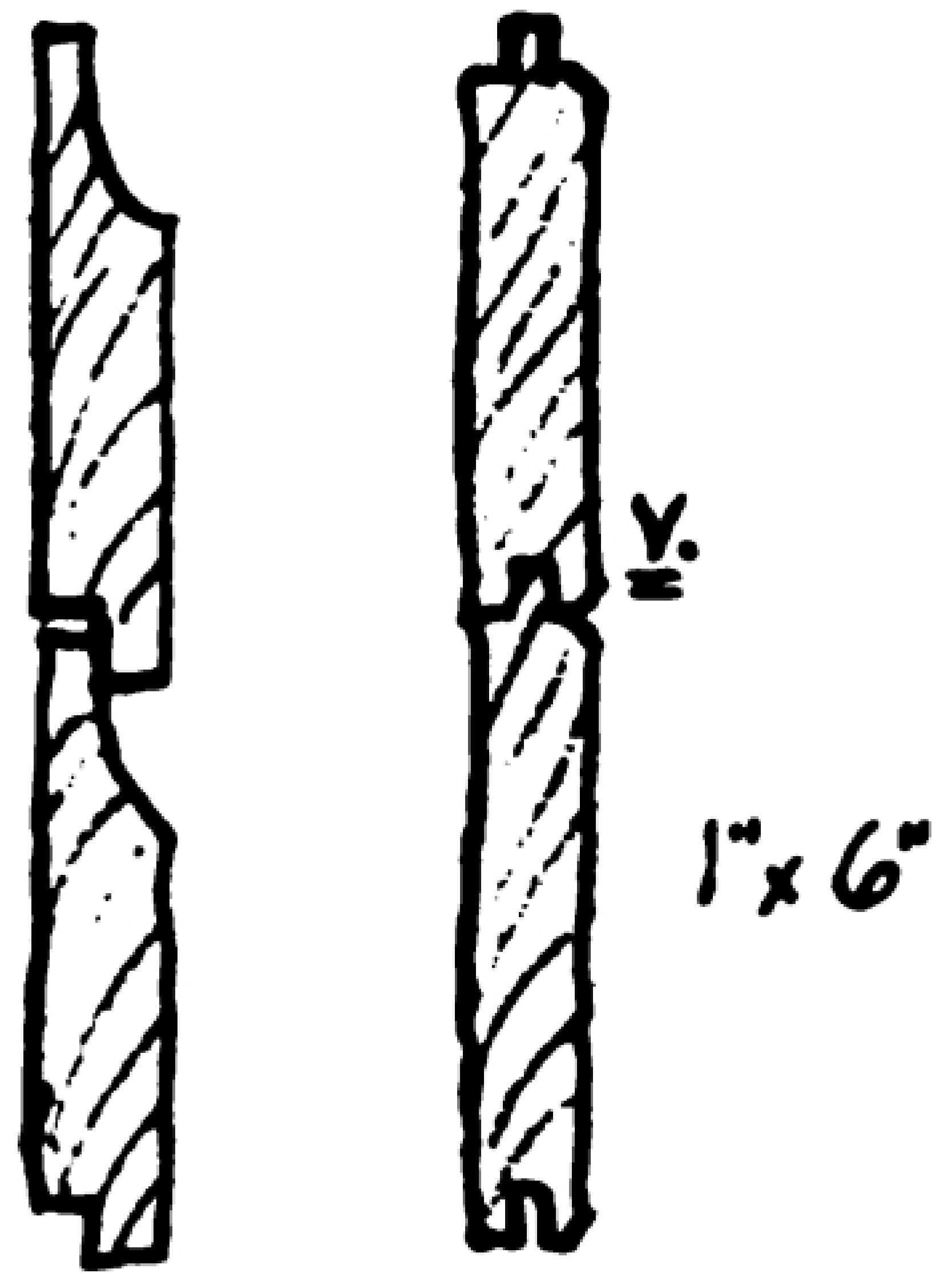
bevel siding

One of the most common types of siding is the lapped bevel. Cedar is one of the popular woods from which this siding is made. It comes in 4-, 6-, and 8-inch widths. The thick butt edge is usually 7/16 inch thick. The 10- and 12-inch widths have an 11/16-inch butt. The minimum headlap for 4- and 6-inch widths is 1 inch; widths over 6 inches should have 1¼ inches headlap. Hot-dipped galvanized nails should be used for applying the siding to the studs. If sheathing is used, try to nail through the sheathing to the stud.

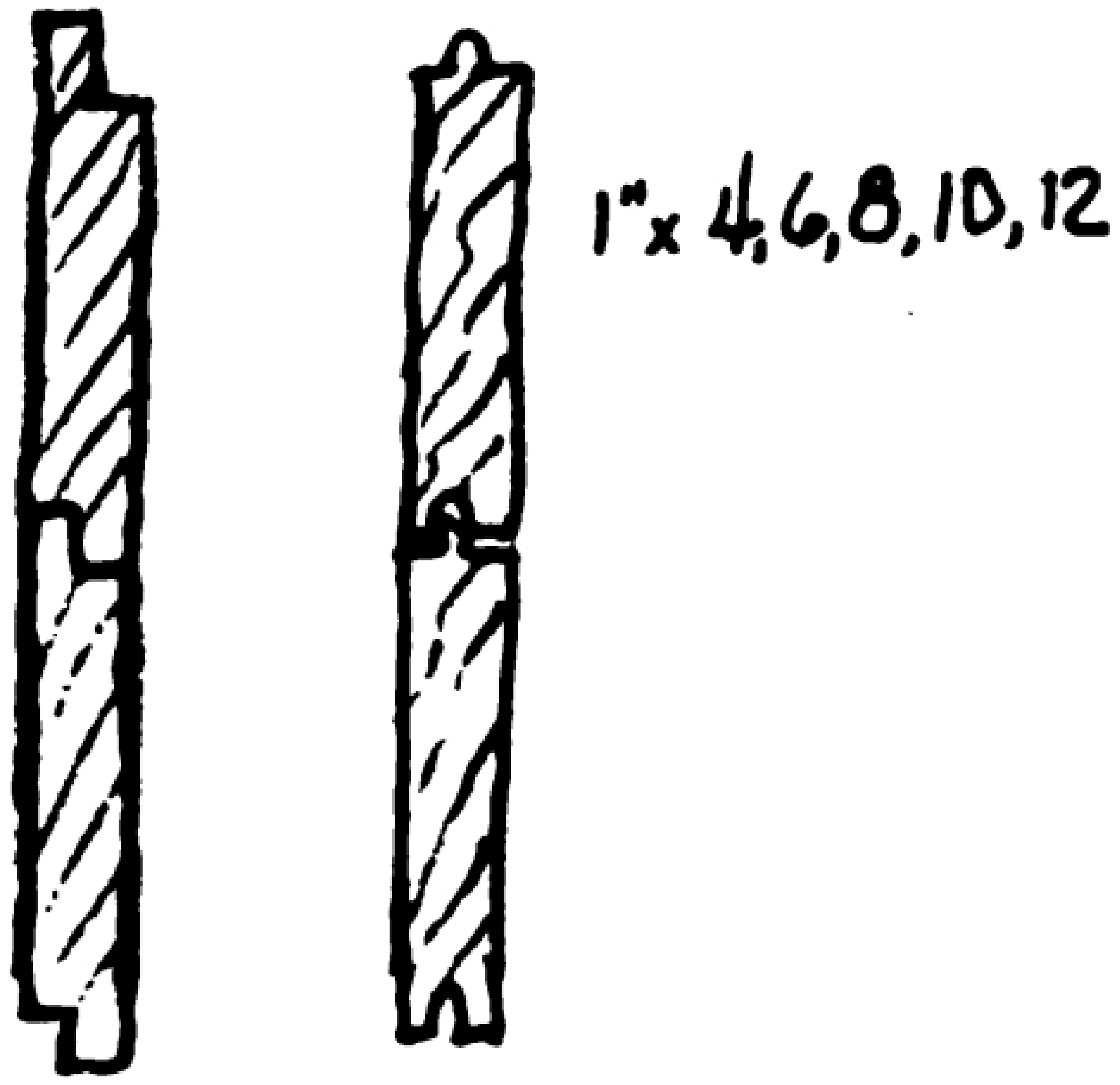
Rustic and drop siding as well as shiplap and matched siding are also popular. The first two should have a finished thickness of ¾ inch. The maximum width is 8 inches. Shiplap or matched siding should be a minimum of 25/32 inch thick. The maximum width is 12 inches.



drop siding

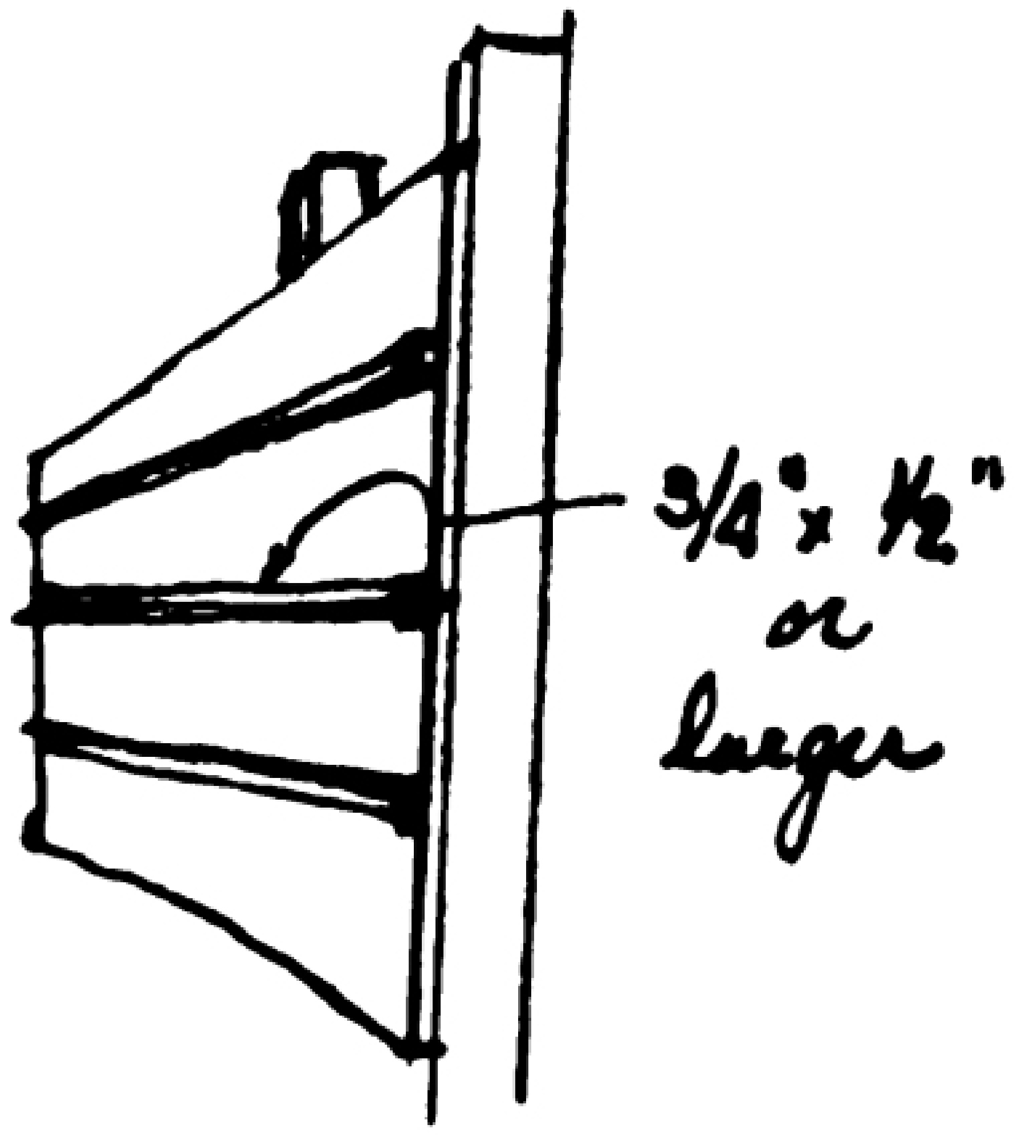


drop siding



shiplap

Plywood is always a possible exterior finish. It is very important that it should be exterior grade—*never use interior-grade plywood for exterior purposes*. Cottage No. 2 would look particularly attractive if it were finished with ⅜-inch exterior-grade plywood. In this case I would nail the 8-foot length of plywood horizontally. The horizontal joints and nails would be covered with batten strips. Similar batten strips could be nailed horizontally every foot above and below the joint. This procedure would also keep the plywood from warping or raising at the edges. Be sure the vertical edge joints are joined at the mid-point of a stud.



batten strips
and plywood

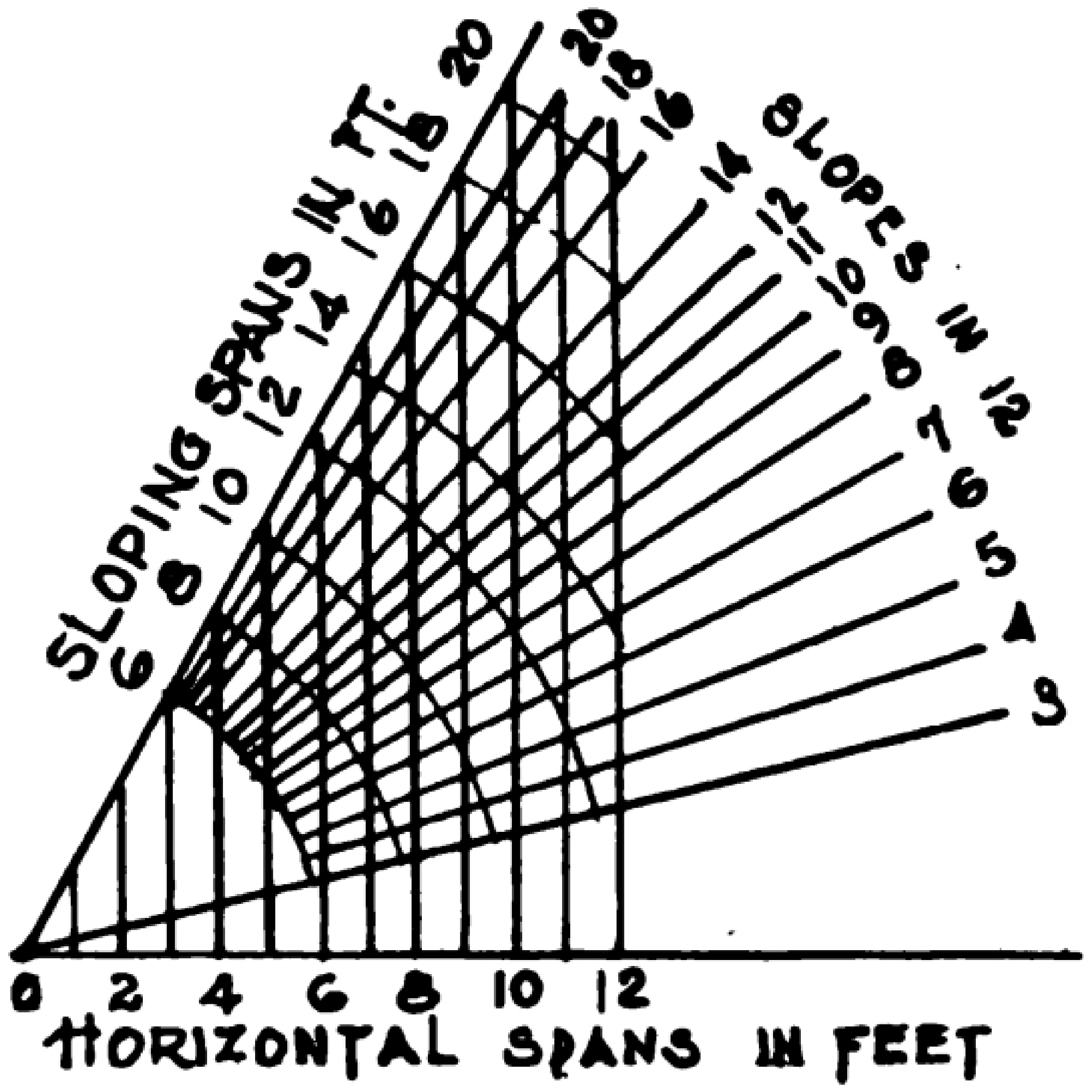
One of the best ways of finishing the exterior of your cottage is the use of vertical tongue-and-groove boards. This type of siding is usually nailed at the bottom to the sill, at the top to the plate and in the middle to a herringbone brace. In Hawaii the vertical siding is often used without any intermediate framing members. The roof load is actually carried by the siding.

Shingles can also be used to cover the exterior of your cabin. I would suggest that you follow the instructions of the manufacturer for laying these. Usually the manufacturer recommends the use of sheathing. If plywood is used for sheathing, the shingles should be applied over 1-by-2-inch nailing strips, and attached with copper or galvanized nails. Asbestos-cement shingles should be attached to the sheathing with barbed nails. Fiberboard sheathing is not acceptable as a nailing base for this type of shingle. Wood shingles should be attached to 1-by-3-inch nailing strips which have been spaced according to the shingle exposure.

ROOFING

There are many types of roofing materials that can be used on your cabin. To some extent, the choice of materials will depend upon whether the roof is pitched or flat. The table on page 120 indicates whether you should use a roll or shingle type of roofing material.

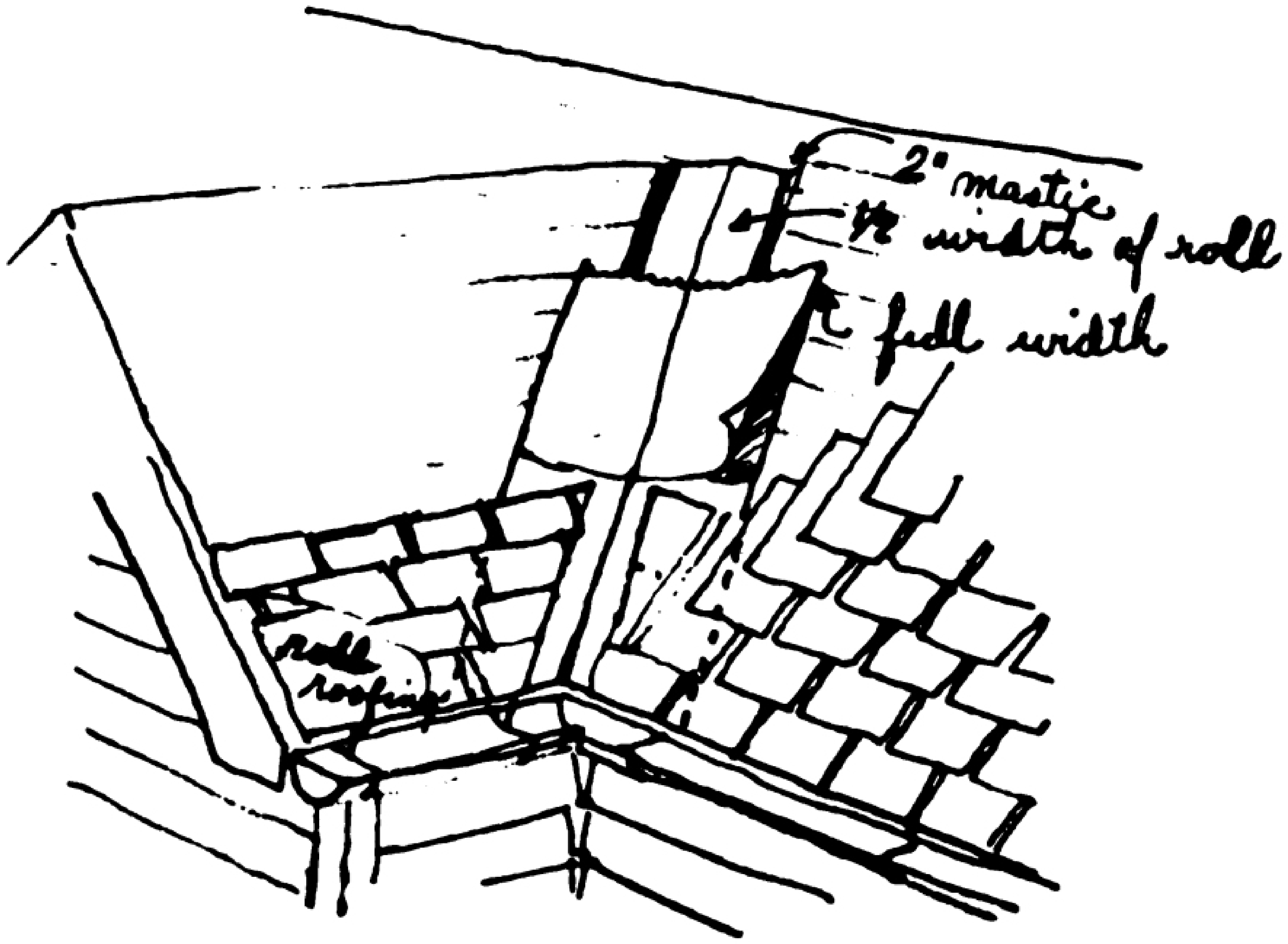
Asphalt shingles require a roof pitch of at least 4 inches to each lineal horizontal foot. When the pitch is this low, most manufacturers of roofing materials recommend that roofing felt or asphalt-saturated building paper be laid under the shingle roof.

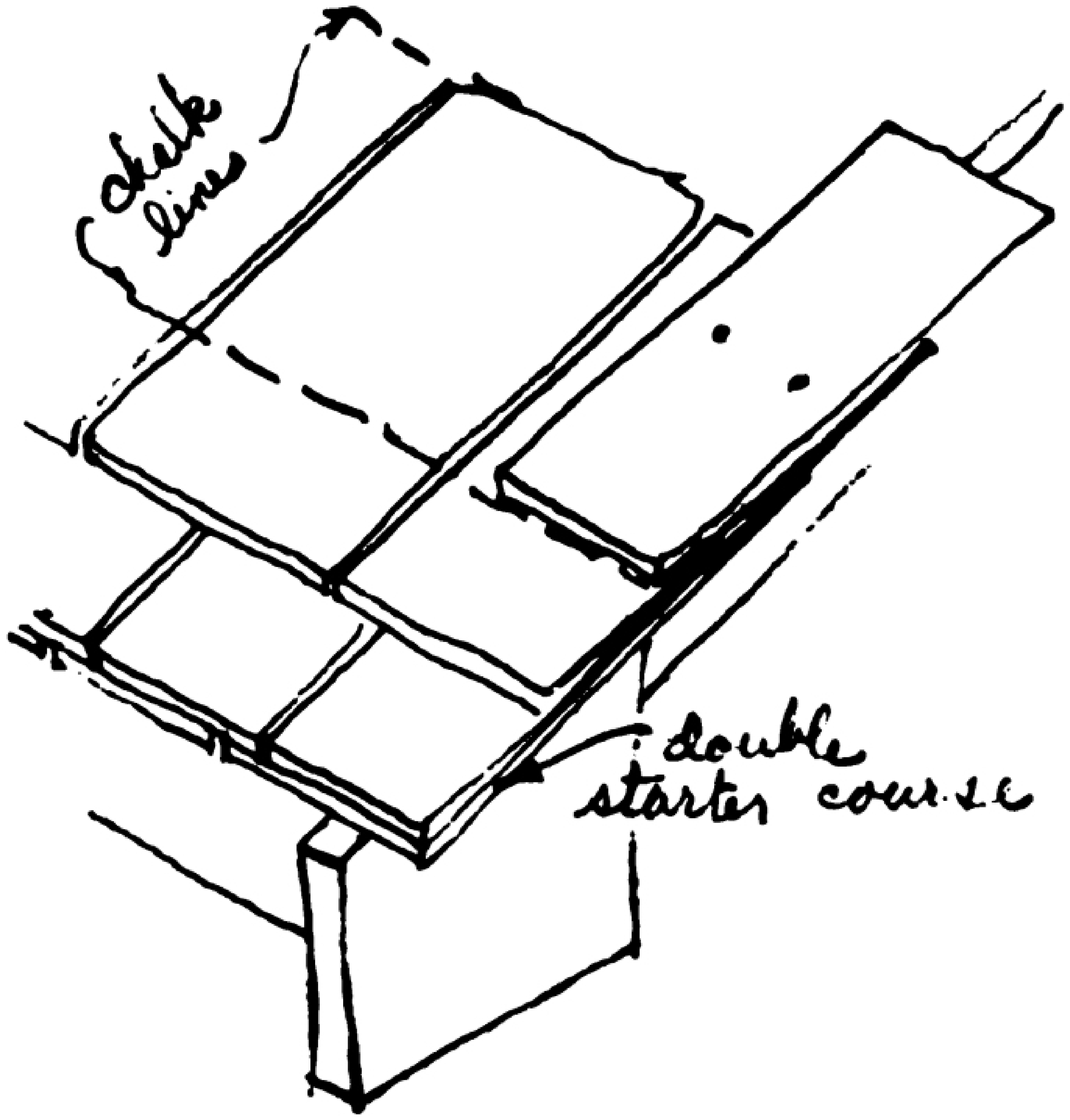


Use roll roofing on any slopes
less than 3 in 12 ~ if you are
using shingles, use roll roofing
under them if slope is less than
4 in 12.

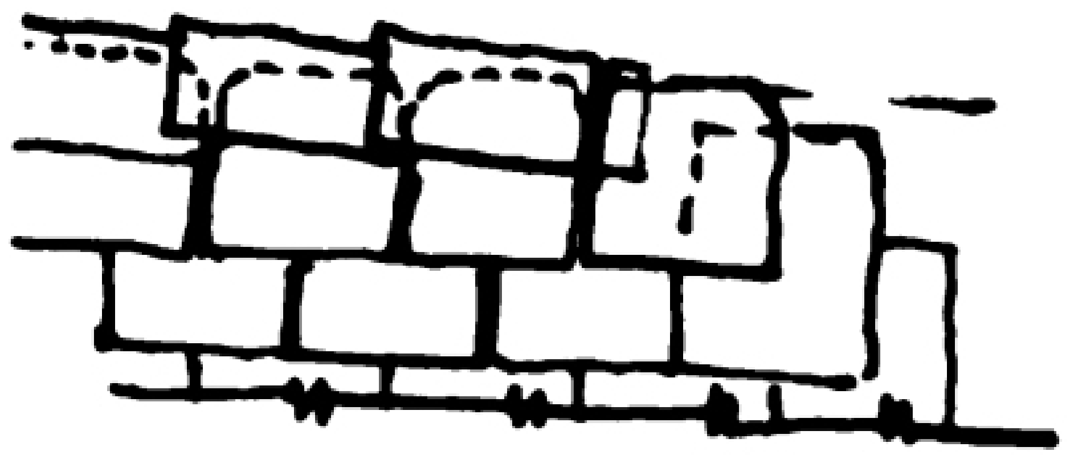
If your roof has any valleys, I'd suggest that you start your ~~work by laying~~ heavy roofing felt down the center of the valley. One layer of felt, 18 inches wide, should be laid face down. Then a second layer, full width, should be laid face up. After this is nailed down, you can start laying the under roofing felt or paper. Manufacturers' recommendations vary, but you'll be pretty safe if the edges overlap about 2 inches horizontally. Start with the lowest part of your roof. Let the edges of the paper overlap the end of the roof by 2 or 3 inches. This overlap should be cut later, a little under the first shingle course. The next layer of paper will overlap the lower one by 2 inches. Continue this process to the peak of the roof. When both sides of the roof are finished, lay one width of paper over the ridge pole. Short wide-head roofing nails should be used with this paper.

When the paper has been put down, use a carpenter's chalk line, which is impreg-





Use roofing felt under shingles if pitch is 4" or less



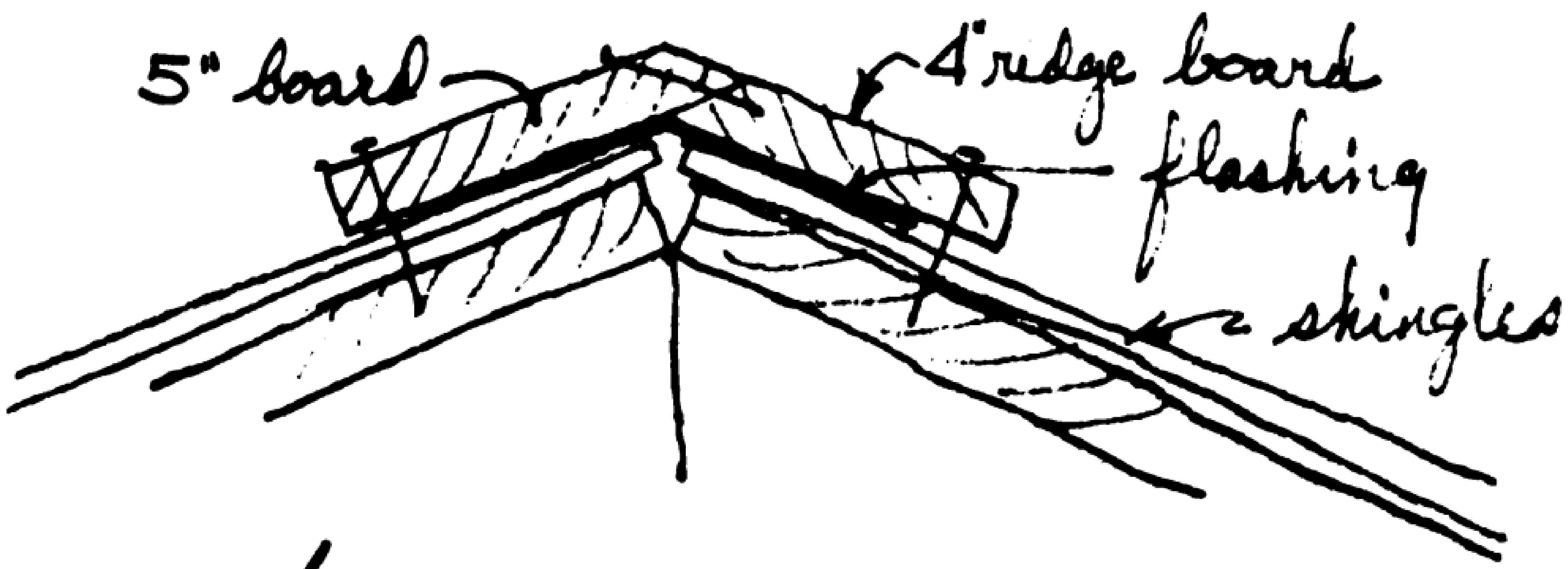
shingle formed over ridge to protect top.

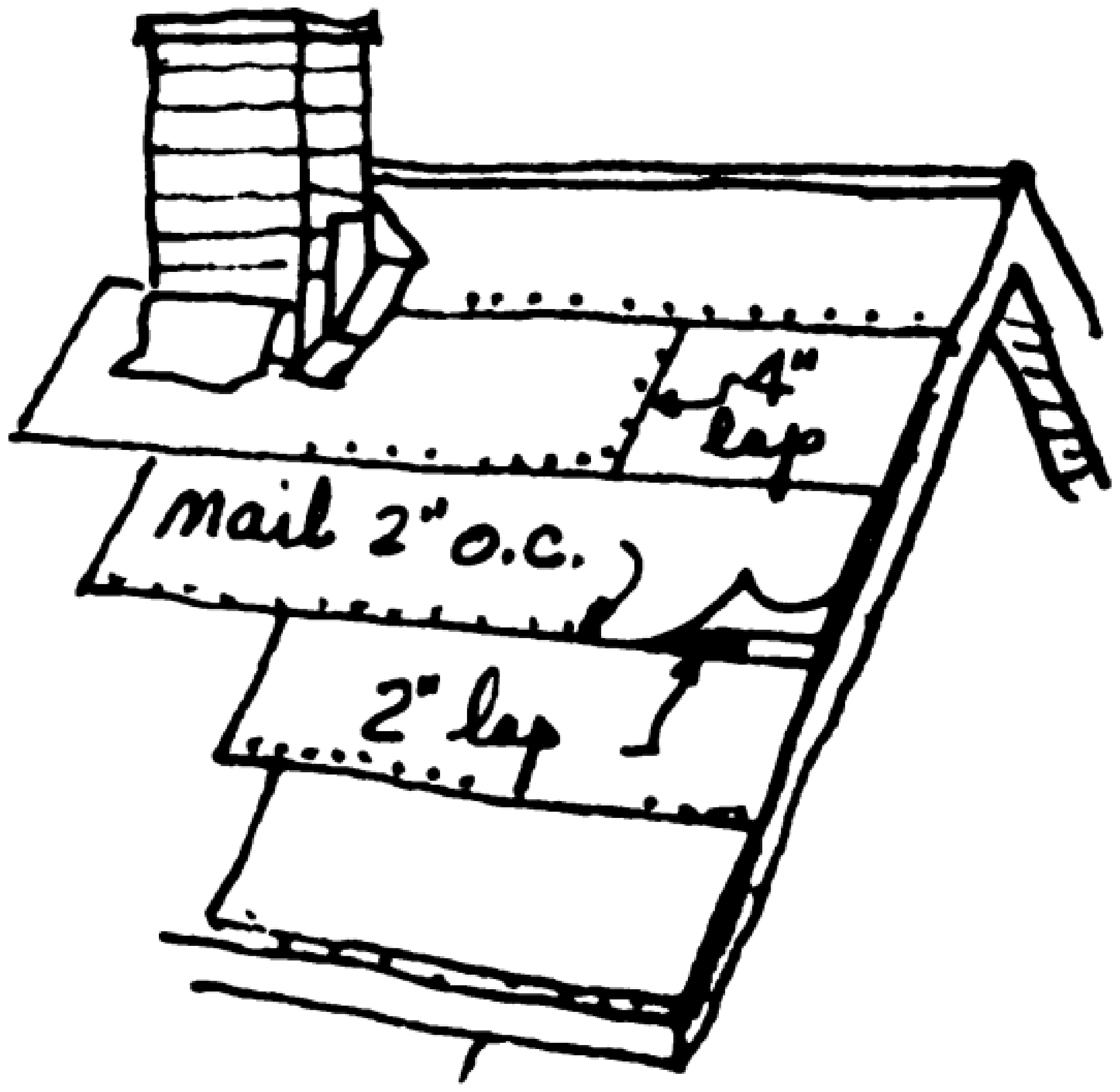
nated with chalk, and snap the guidelines for the shingles. If your shingle exposure is 4 inches, you will want to snap chalk lines with this spacing all the way from the first course to the last at the top. You are now ready to start laying the shingles.

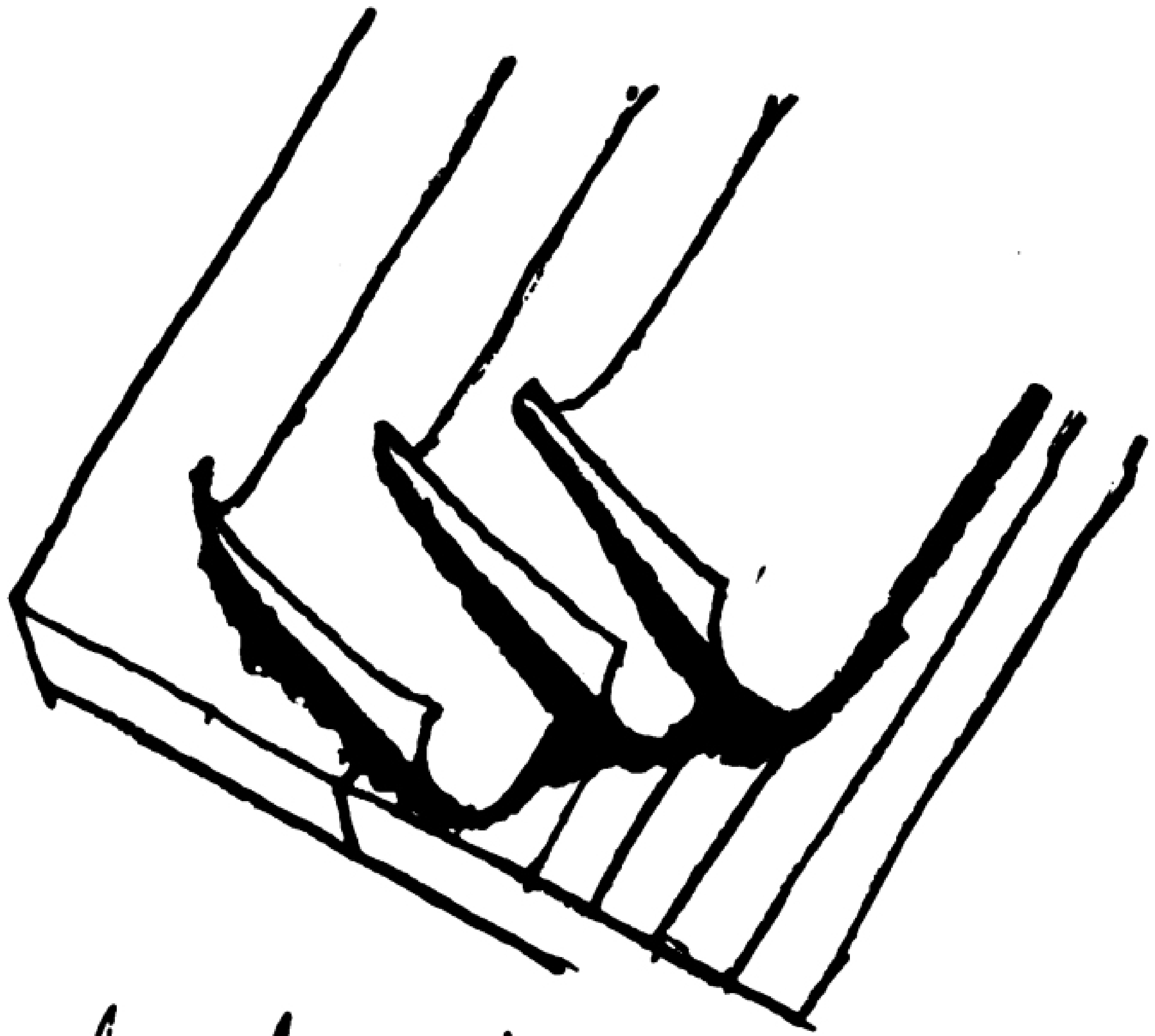
The first course of shingles should be laid double and should extend ⅜ inch beyond the roof edge. The guidelines on the paper will align the overlap which each course will have. The last rows at the top will have to be cut; and a strip of granulated roofing paper, a metal cap, or a ridge piece, or shingles laid edgewise will be required to finish the top as shown in the illustration.

Wood shingles are laid much as asphalt shingles are except that they are not butted on the sides. Leave a ¾-inch space between the shingles. The ridge piece can be made of wood strips as shown in the illustration.

Roll roofing is one of the easiest types to apply. The accompanying illustration shows how this is done. You'll note that there is an overlap that is cemented down and nailed. This overlap varies with the type of roofing felt used. One type has half of the







width granulated, the remainder heavy felt. The granulated section is left exposed, and the felt part is cemented and nailed. This type can also be used on roofs having only enough pitch to drain the water, provided that the roofing boards are first covered with roofing mastic.

Flat or pitched roofs can be covered with a number of materials, but one of the least expensive methods is to build up the roof with a number of layers of roofing felt saturated with asphalt binder. The illustration shows how this is done. A cold roofing compound or hot pitch may be used as a binder.

Regardless of the above directions, be sure to follow the manufacturer's directions for applying his particular roofing material.

PAINTING AND FINISHING

The best advice that I can give you about painting your cottage is to follow the directions on the can. Use a good titanium-oxide-base paint. It pays to use the best. Choose a color that will harmonize with your surroundings.

Personally I prefer a natural exterior finish. Varnish, or stain alone, will not hold up. The United States Department of Agriculture, Forest Products Laboratory, recommends a finish that is made of half spar varnish and half turpentine or other paint thinner. This mixture is wiped on the wood surface. When the surface begins to shine, be sure to wipe this excess material off. This will give you a dull finish, but it will keep your wood natural-looking.

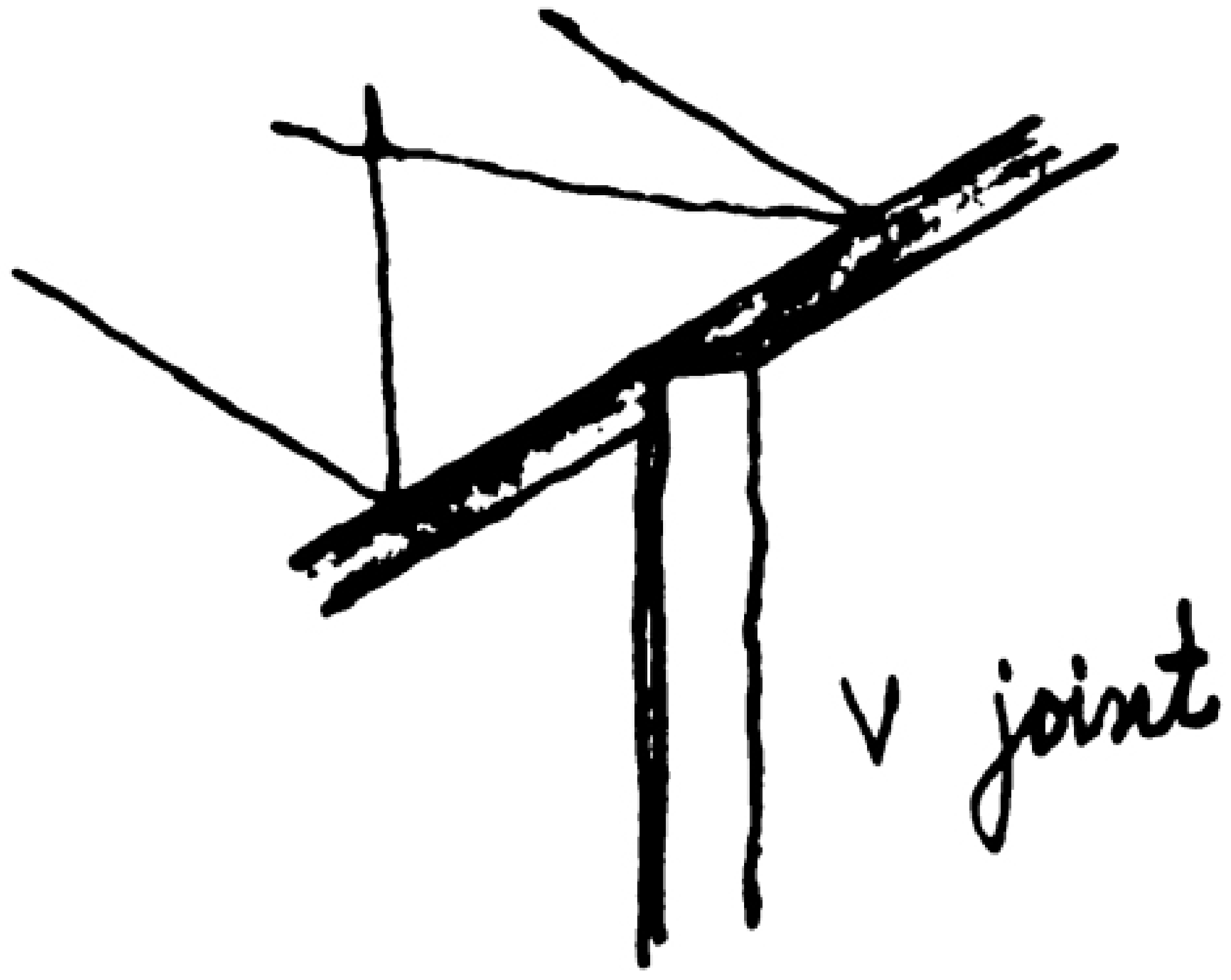
INTERIOR FINISHES

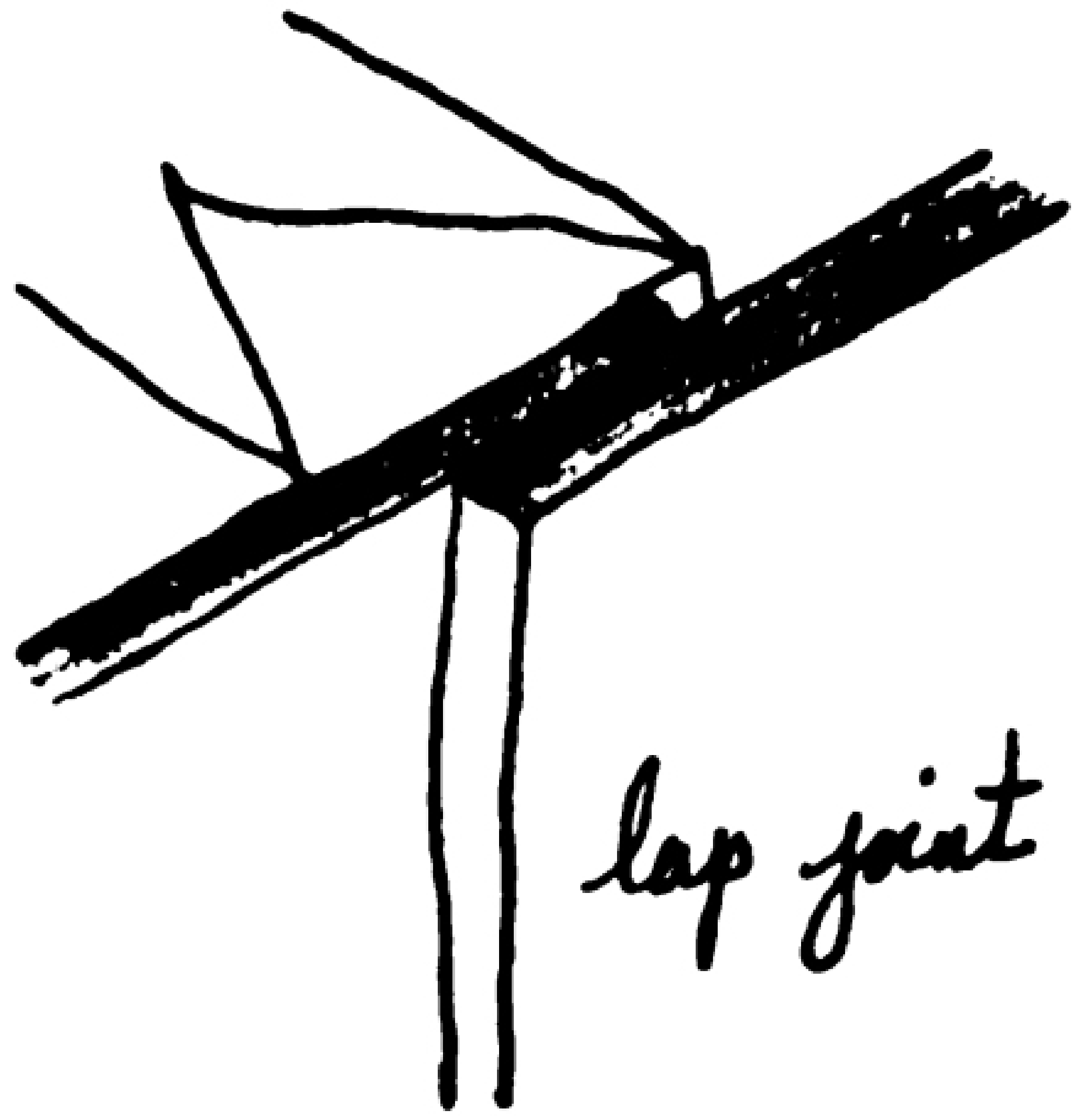
Perhaps I'm prejudiced, but I like wood as the interior finish material for almost any of the cottages. A camp that may stand vacant for long periods without heat needs a finish that can take it. Composition materials that may be ideal for a year-round house are apt to buckle or be damaged by condensation in a summer cottage.

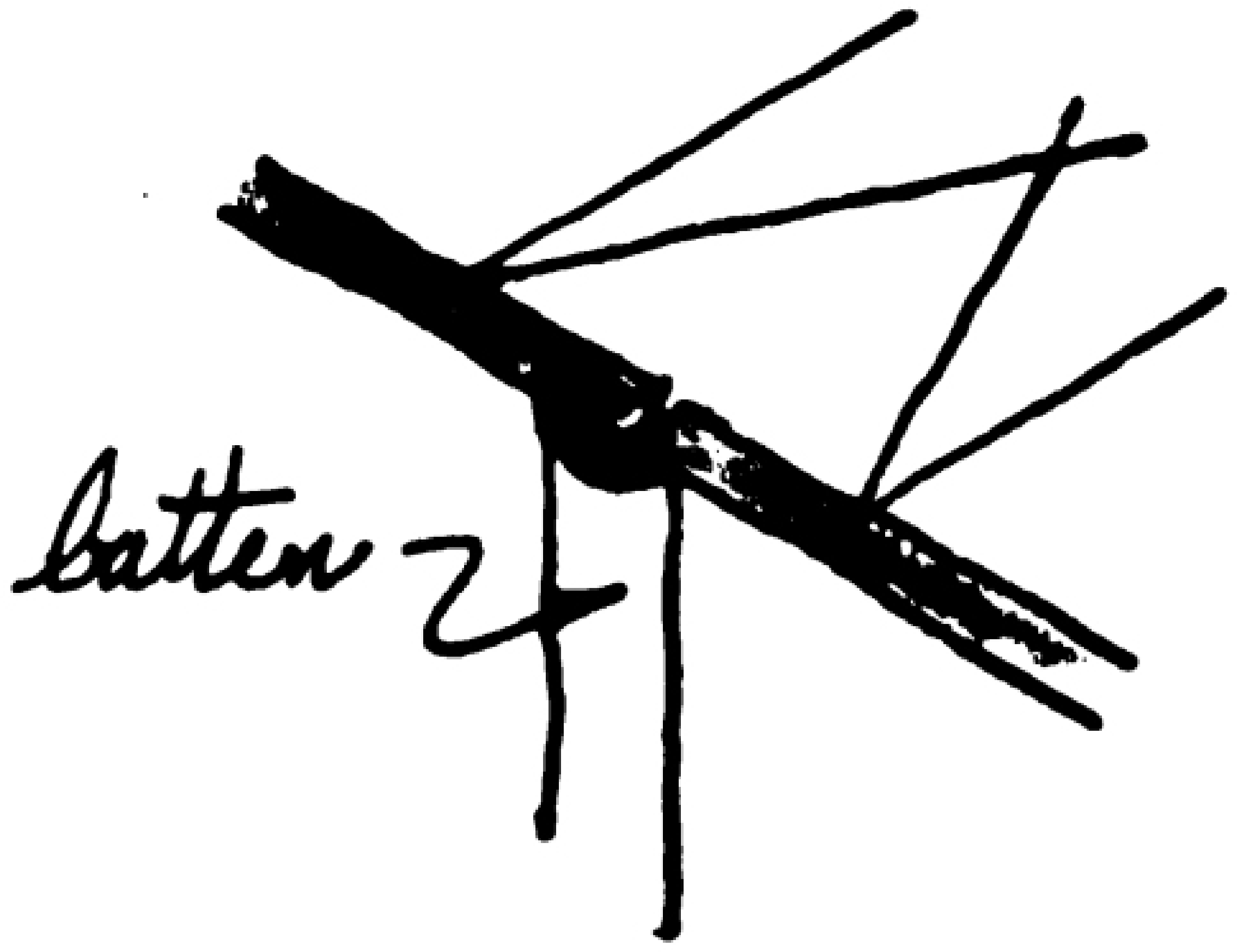
Plywood is a common material that can be used. Several finishes are now available, including striated surface, a raised grain finish, and the more common smooth finish. Plywood can be cut and laid in a number of different patterns. The edges can be butted together, covered with batten strips, or planed on the edges to make a noticeable V joint. It will help to stiffen your structure and is, therefore, a real building material.

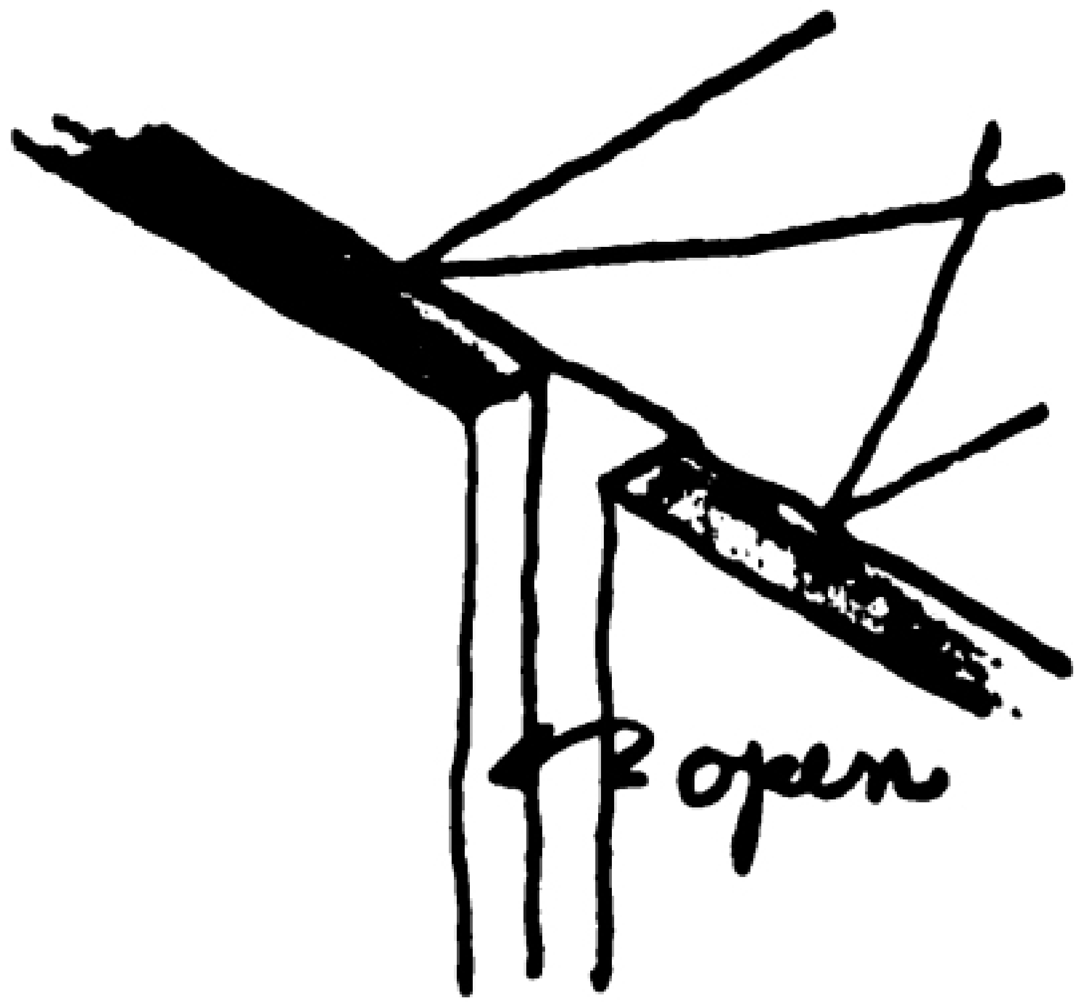
Planking with square edges, tongue-and-groove, V-jointed or other surface markings can be used horizontally or vertically in your cabin. Like plywood, it is a serviceable material that will help your structure.

Ceilings can be made of wood laid up like the side walls. Camp No. 2 has a novel ceiling which could be used in any of the camps. It is made of cedar bevel siding. The siding is nailed directly to the roofing rafters with the narrow edge of the siding toward the outside walls, the wide edge toward the center of the room.









You can leave your ceilings or side walls without any covering material if you wish. I'd strongly suggest, however, that you insulate your roof. The only place that will require a hard and impervious finish is the bathroom. The finish of this area should be tile board, linoleum, or actual tile (real tile, plastic, or aluminum) over 3-inch-wide wood boards. Again, follow the manufacturer's recommendations for the application of the finish material. The only substitute you may find satisfactory is an asbestos cement sheet. This must be handled with care, because it is brittle. Drill the nail holes—don't try to drive nails direct.

Don't forget to have a convenient medicine cabinet in the bathroom. It would also be a good idea to install a small electric radiant heater to take off that morning chill.